FU MANCHU • JUDAS PRIEST • SHARKMUFFIN • DIY MARSHALL CLONE KITS

AUGUST 2014

PREMIER Guitar®

PREMIERGUITAR.COM

PG the relentless pursuit of tone

5

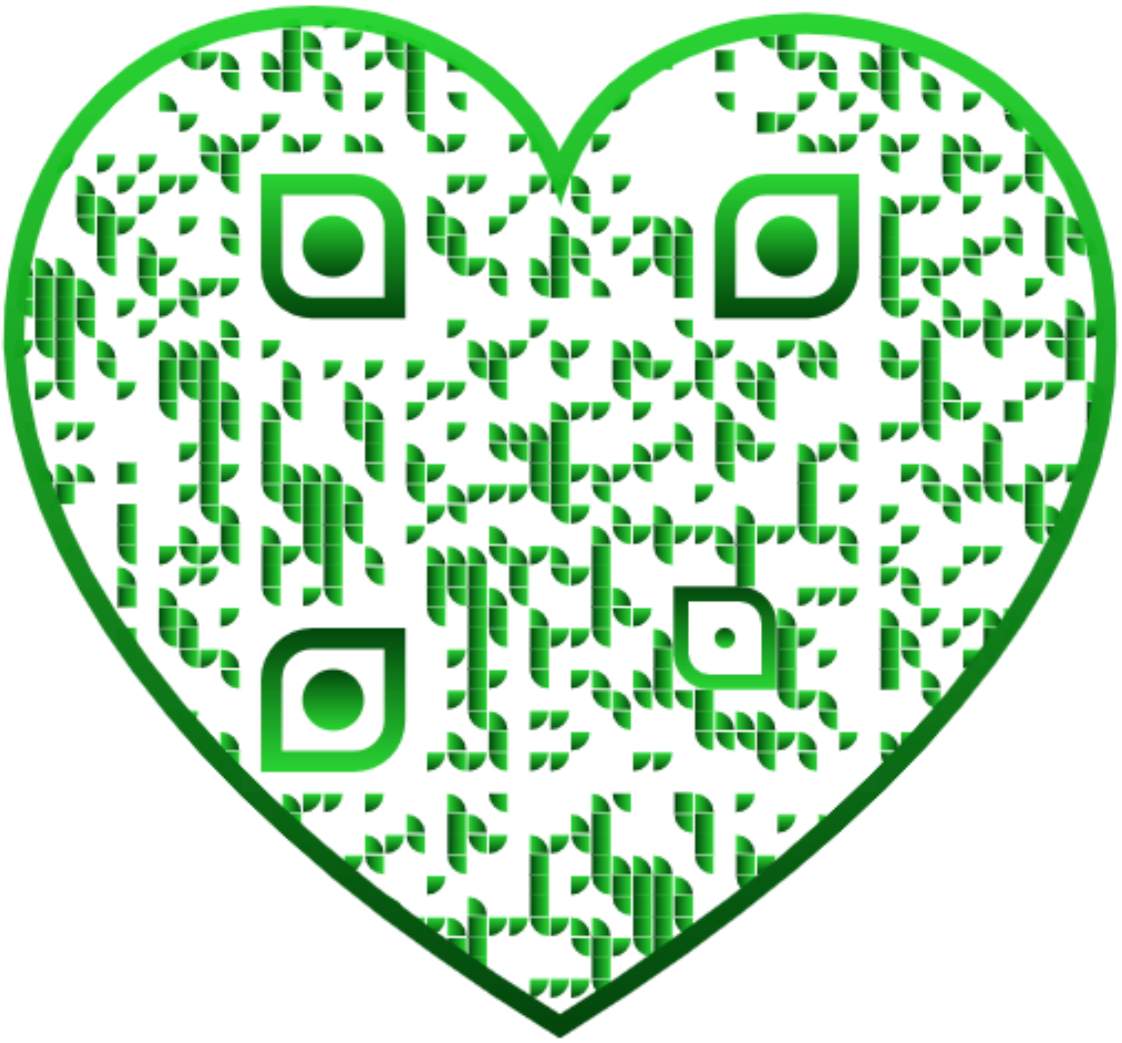
THE AMP ISSUE

BOOM BOXES THAT MAKE THE WORLD GO ROUND

13 GUITAR & BASS REVIEWS

RIVERA / IBANEZ
LOVEPEDAL
REVEREND
MXR / & MORE

$6.95US $6.95CAN
08
74470 22757 1



Sponsored by Dunlop

AUGUST Highlights

p. 61

36 Boom Boxes
We look at the five classic amps that define the music we hear—and the gear we play.

61 Gibson's GA-5
Vintage amps are pricey, but if you know what to look for, you might find a bargain.

81 Judas Priest
The Brit metal pioneers release their first album with guitarist Richie Faulkner.

119 Fu Manchu
The stoner-rock torchbearers go big on *Gigantoid*.

134 DIY 18-Watters
We built two Marshall 18-watt clone kits. Which was more fun to make?

REVIEWS: Keith McMillen SoftStep 2 MIDI • EHX Lumberjack Log Overdriver Lovepedal Hi Volt • Korg Rimpitch Tuner • Ruokangas Mojo King • Fender Dimension Bass Juliet Collective Orangecream • Rivera Venus Deux • Gibson J-15 and J-29 • Ibanez TS808DX Born OG Carve • MXR M68 Uni-Vibe • Reverend Meshell Ndegeocello Fellowship

CLICK HERE
to sign up for your FREE subscription to *Premier Guitar*'s digital magazine!

Top: Photo by Ariel M. Goldenthal **Bottom:** Photo by Ken Settle

© 2014 Fender Musical Instruments Corporation. Fender®, Deluxe Reverb®, Groove Tubes®, Telecaster®, Tele® and the distinctive headstock designs commonly found on Fender guitars are registered trademarks of FMIC. All rights reserved.

fender.com/vintage-reissue

VINTAGE REISSUE '65 DELUXE REVERB AMPLIFIER

STUDIO PERFECTION

Fender®

The Wee Lowden

Our smallest Lowden yet has a 610mm/24" scale length and hand carved voicing to bass bias for a surprisingly full acoustic tone.

Model shown features Indian Rosewood back and sides paired with a Redwood top, finished with 35 Series appointments. The Wee Lowden is available from selected Lowden retailers worldwide.

1974 - 2014

George Lowden celebrates 40 years of guitar building and designing

Handmade in Ireland

georgelowden.com

Lowden GUITARS

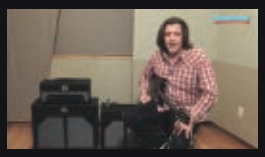
NEW!

ORANGE AMPLIFICATION
Rockerverb 50 MkII
Rocker50CWht

PRS PAUL REED SMITH GUITARS
HXDA Custom 30-Watt 1x12"
PRSHXDA112EL

MESA ENGINEERING
King Snake Limited Edition 1 x 12"
KingSnake

NEW!



See The Whiskey Combo video demo at **Sweetwater.com/WhiskeyCombo**

65 AMPS
The Whiskey Combo
WhiskeyCombo

NEW!

Epiphone
performance is our passion
1939 Century Amp
EPACN12AN

GUITAR GALLERY SHOWS YOUR ACTUAL BASS OR GUITAR

Sweetwater's online **Guitar Gallery** lets you check out our world-class inventory of basses and guitars in beautiful multiple-photo detail. Then, you can pick the exact bass or guitar you want by serial number! Visit Sweetwater.com/guitargallery.

55-POINT EVALUATION PROVIDES EXCEPTIONAL PLAYABILITY

Nearly every bass and guitar that we stock receives a detailed **55-point Evaluation** by our experts before it's shipped. We make sure it looks, sounds, and plays great right out of the box! Visit Sweetwater.com/55-point for more details.

Find and Order Your Dream Guitar 24/7!

24 MONTHS SPECIAL FINANCING AVAILABLE

ON SELECT BRANDS, USING YOUR SWEETWATER MUSICIAN'S ALL ACCESS PLATINUM CARD, THROUGH AUGUST 31, 2014*

*Subject to credit approval. Minimum monthly payments required. Call your Sweetwater Sales Engineer for details or visit Sweetwater.com/financing.

Get Amplified!

Sweetwater Has All of Your Amplification Gear... and More!

RIVERA
Venus 3
Venus3112

NEW!

SUPRO
S6420+ Thunderbolt Plus
ThunderboltPls

NEW!

TECH 21
Fly Rig 5
FlyRig5

Two notes
AUDIO ENGINEERING
Torpedo C.A.B.
TorpedoCAB

KEMPER
Profiler Rack
ProfileRk

Sweetwater®
Music Instruments & Pro Audio

(800) 222-4700
Sweetwater.com

2-YEAR WARRANTY**
Total Confidence Coverage™ Warranty

FREE PRO ADVICE
We're here to help! Call today!

FAST, FREE SHIPPING
On most orders, with no minimum purchase!

**Please note: Apple products are excluded from this warranty, and other restrictions may apply. Please visit Sweetwater.com/warranty for complete details.

Award Winning Gear

BEST GEAR GURUZ of NAMM 2011

GUITAR WORLD PLATINUM AWARD
QUALITY & DESIGN

PG PREMIER GUITAR PREMIER GEAR

V3M

3 Channels
All tube - Reverb
50w, 22w, 7w

"The V3M's features are selected for real-world usability, and the breadth and quality of its sonic abilities are impressive and accesible—all this while hanging on to the micro amp spunk so many of us have come to love."
Dimitri Sideriadis

PREMIERGuitar

CS6M

Premium Single-Cut Carved Top
Contoured set-in neck heel
Custom Shop 5-8 week delivery

V3MC 12" COMBO

12AX7 EL84

MADE IN USA

CARVIN
Where made in the USA matters

6 months No interest

buy direct • carvin.com • 800.854.2235

New! (Old!)

N.O.S. HEAVEN

$349
Estimated "Street Price"

- Made in Korea (fabulous build quality!)
- Hot Vintage Colors

Opportunity knocks! Our pickup supplier "misplaced" a load of our Lipstick® pickups in their warehouse…only to discover them recently… 15 years after they were manufactured!

When we listened to them we realized that these "New Old Stock" wonders have more twang than any Lipstick® ever! Is it because of the aged magnets? Or the materials used 15 years ago? Who knows. Who cares. They just sound great!

So we took our flagship 59M model, with the tunable die cast bridge, and installed these 15 year old wonders…and voila….the best sounding, best playing Dano ever!

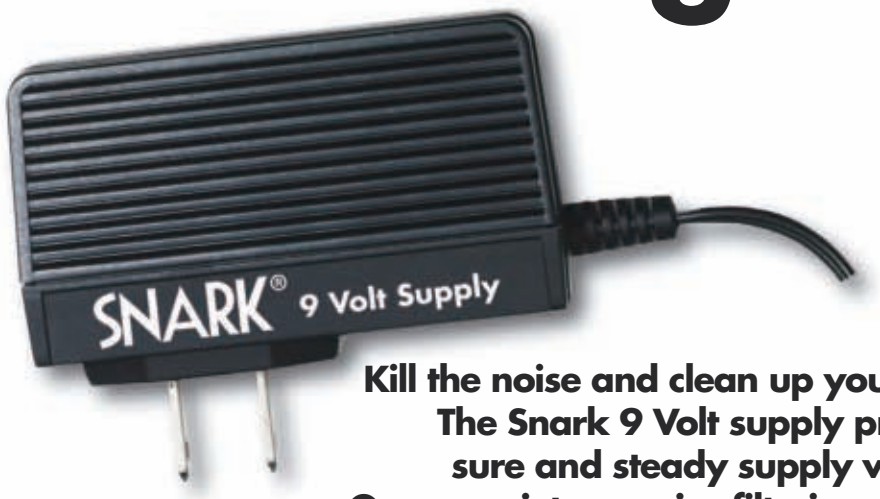
The bad news? Quantities are limited. So snag yours today.

The 59 M-NOS

Danelectro

danelectro.com

The Strong Silent Type.



Kill the noise and clean up your tone! The Snark 9 Volt supply provides sure and steady supply voltage. Our proprietary noise filtering assures silent operation. Powers up to 15 pedals.

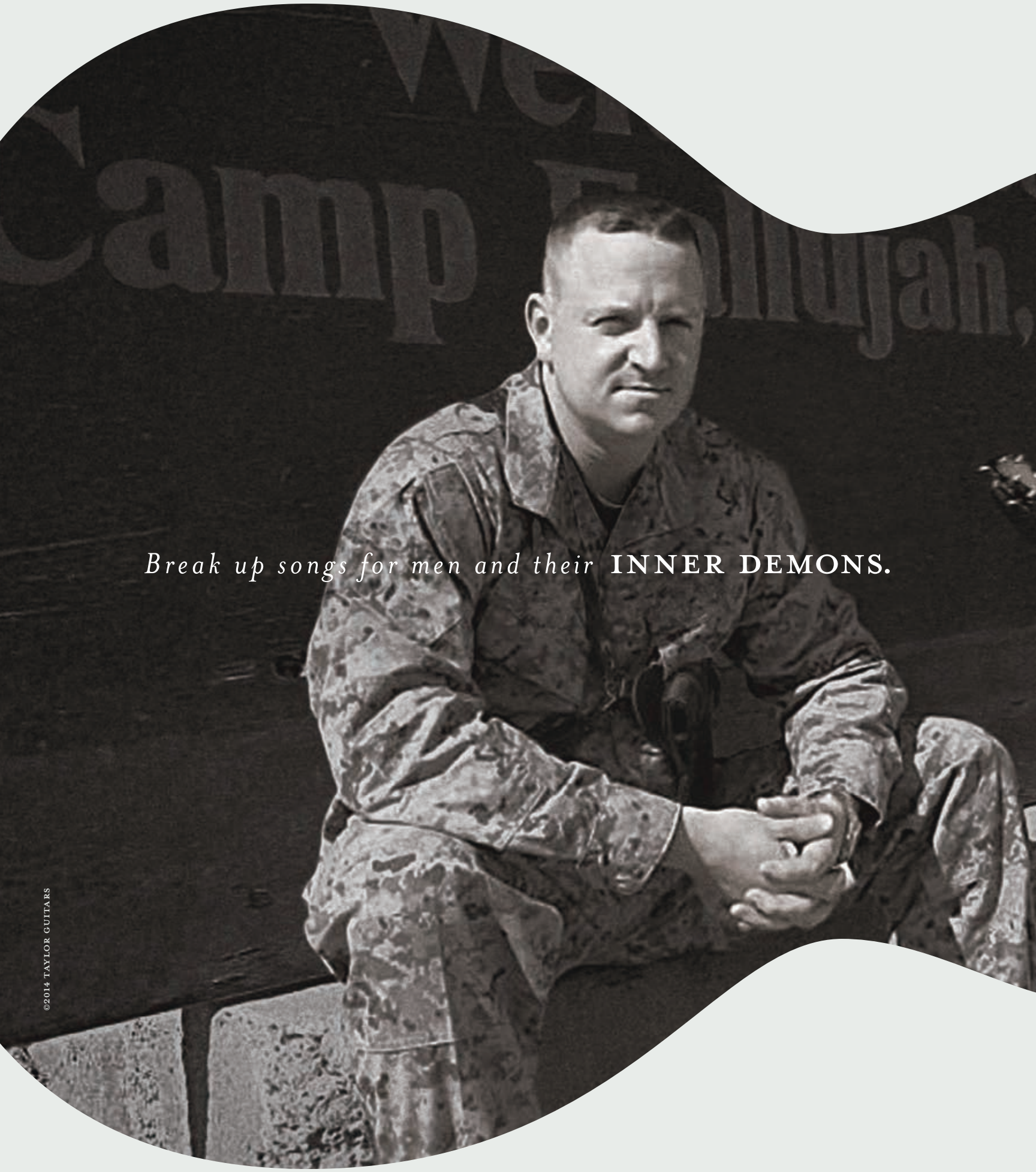
Snark Daisy Chain connects up to 5 pedals to any 9 volt supply.

Silence is Golden.

SNARK®

snarktuners.com

© Danelectro/Snark 2014



©2014 TAYLOR GUITARS

ORIGINAL PHOTO BY LANCE CPL. AARON P. MANKIN

There is no endorsement of Taylor Guitars by the Dept. of Defense, Dept. of the Navy or the U.S. Marine Corps.

MIKE, A COMBAT-SEASONED MARINE, HAD ALWAYS BEEN BRAVE. BUT IT WASN'T UNTIL HE RETURNED HOME FROM HIS TOUR IN IRAQ, THAT HE REVEALED JUST HOW FEARLESS HE REALLY WAS. BECAUSE AS SOON AS MIKE STEPPED BACK ONTO U.S. SOIL, HE STEPPED OUT ONTO A HUGE LIMB BY WRITING AND PERFORMING SONGS THAT UNEARTHED THE KIND OF SUBJECT MATTER MOST RETURNING SERVICE MEN AND WOMEN NEVER WANT TO TALK ABOUT—REOPENING WOUNDS IN ORDER TO HEAL THEM. AND THOUGH MIKE REALIZED HE WOULD STIR UP A LOT OF ANGER, DARKNESS AND PAIN, HE ALSO KNEW HE COULD HELP HIS FELLOW SERVICE MEMBERS COPE WITH THEIR DEMONS IN A WAY THAT WAS A LITTLE LESS DAUNTING. THROUGH MUSIC MIKE INSPIRES US, AND REMINDS US THAT THE WORLD NEEDS MORE PEOPLE LIKE HIM. FOR MORE ABOUT MIKE AND OTHER STORIES OF PEOPLE WITH THE COURAGE TO STEP FORWARD, *visit taylorguitars.com*

Step forward. MUSIC IS WAITING.™

QUALITY Taylor® GUITARS

PREMIER Guitar

Publisher Jon Levy

EDITORIAL
Chief Content Officer Shawn Hammond
Managing Editor Tessa Jeffers
Senior Editor Andy Ellis
Senior Editor Joe Gore
Gear Editor Charles Saufley
Art Director Meghan Molumby
Associate Editor Chris Kies
Associate Editor Rich Osweiler
Associate Editor Jason Shadrick
Nashville Correspondent John Bohlinger
Nashville Video Editor Perry Bean
Photo Editor Kristen Berry

PRODUCTION & OPERATIONS
Operations Manager Shannon Burmeister
Circulation Manager Lois Stodola
Production Coordinator Luke Viertel

SALES/MARKETING
Advertising Director Brett Petrusek
Advertising Director Dave Westin
Marketing Manager Matt Roberts
Director of Marketing Colton Wedeking
Greenhorn of Gear Chris Farruggia

GEARHEAD COMMUNICATIONS, LLC
Chairman Peter F. Sprague
President Patricia A. Sprague
Managing Director Gary Ciocci

WEBSITES
Our Portal
premierguitar.com
Our Online Magazine:
digital.premierguitar.com

The information and advertising set forth herein has been obtained from sources believed to be Gearhead Communications, L.L.C., however, does not warrant complete accuracy of such information and assumes no responsibility for any consequences arising from the use thereof or reliance thereon. Publisher reserves the right to reject or cancel any advertisement or space reservation at any time without notice. Publisher shall not be liable for any costs or damages if for any reason it fails to publish an advertisement. This publication may not be reproduced, in whole or in part, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopied, recorded, or otherwise, without the prior written permission of the publisher.

Copyright ©2014. All Rights Reserved. Reproduction in whole or in part without written permission is prohibited. Premier Guitar is a publication of Gearhead Communications, L.L.C.

Premier Guitar [ISSN 1945-077X (print) ISSN 1945-0788 (online)] is published monthly. Subscription rates: $24.95 (12 issues), $39.95 (24 issues) Call for Canada, Mexico and foreign subscription rates 877-704-4327; email address for customer service lois@premierguitar.com.

PREMIER GUITAR (USPS 025-017)
Volume 19, Issue 8
Published monthly by:
Gearhead Communications, LLC
Three Research Center
Marion, IA 52302
Phone number: 877-704-4327 • Fax: 319-447-5599

Periodical Postage Rate paid at Marion, IA 52302 and at Additional Mailing Offices

POSTMASTER: Please send address changes to: Gearhead Communications, LLC, Three Research Center, Marion, IA 52302

premierguitar.com
info@premierguitar.com

Distributed to the music trade by Hal Leonard Corporation.

ERNIE BALL®

PRESENTS

ALL ACCESS WITH SLASH

YOUR CHANCE TO WIN:

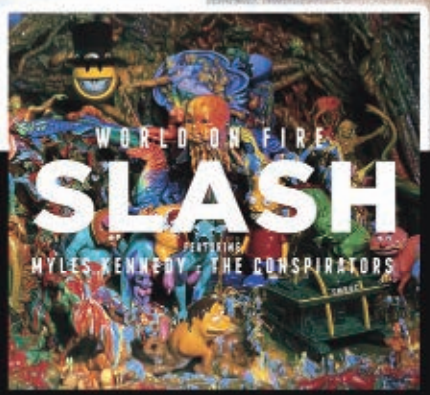
- $50,000 IN CASH AND GEAR
- A TRIP TO HOLLYWOOD, CALIFORNIA
- VIP ACCESS TO PRIVATE REHEARSALS AND ALBUM LAUNCH SHOW

LOOK FOR LIMITED EDITION PICKS & UNIQUE CODES INSIDE PACKS OF ERNIE BALL STRINGS

IN STORES EVERYWHERE 08/01/14

ERNIE BALL MUSIC MAN

GUITAR WORLD



NEW ALBUM AVAILABLE 09-16-2014

NO PURCHASE NECESSARY. A PURCHASE WILL NOT INCREASE YOUR CHANCES OF WINNING. LEGAL RESIDENTS OF THE 50 UNITED STATES (D.C.) 18 YEARS AND OLDER. VOID WHERE PROHIBITED. Enter Sweeps by 9/30/14. To claim your prize, for full Official Rules, how to enter without purchase, prize descriptions and odds disclosure, visit www.ernieball.com/slash. Instant Win prizes must be claimed 12/1/14. Sponsor: Ernie Ball, Inc., 53-973 Polk Avenue, Coachella, CA 92236.

Funk Sh*! Up

BY SHAWN HAMMOND

@PG_shawnh

Are you obsessed with "the brown sound" so much that you no longer notice the brown stains on your teeth? Do you lie awake at night weighing the pros and cons of jail vs. the tonal properties of illegal tortoiseshell picks? Do you sell your plasma weekly and raid gas-station penny bowls to fund NOS tubes? Are there more pedalboards in your bedroom than chairs in your living room?

Some of you think I'm joking. Some of you are imagining Raphael and Donatello kicking the asses of CITES-violating jerkwads. The rest of you either are or should be saying, "If you only knew the depths to which I have sunk for the sake of grand tone…."

To the first, I say, "Enjoy your naïveté." To the second, I say, "Beware of Michael Bay." And to the rest of you I say, "Enough is enough—it's time to funk shit up."

Take this literally or figuratively—either way, it's turtle-soup-for-the-soul advice: We have a propensity to be too damn un-funky. Too prone to plodding, predictable rhythms. Too addicted to the same old progressions or chord shapes. Too dismissive of "icky" guitar tones. Too apt to go for that phat-toned whole-step bend on the G string—followed by either a fifth on the high E or maybe a super-sustained B-string bend up at the 15th fret. Too stuck on isolated-in-a-laboratory definitions of cool sonics. We chase after sounds that rage in our bedrooms, but we wrinkle up our noses at sounds that, in a full band mix, might be the difference between only guitar dudes caring and regular people actually giving a cuss.

So try this: Buy yourself James Brown's *The 50th Anniversary Collection*. Put some Sly Stone in rotation. Get yourself some Kool & the Gang, KC and the Sunshine Band, Earth Wind & Fire, and Commodores. Even if you don't become a funk fanatic, you'll learn tons. Plus, you will become a funk fanatic.

For starters, these bands have seriously dense mixes. But check out how the guitar pops like crazy. Everybody's got their own space, and they dial in their tones so they don't step on the organ or the bass or the sax, let alone the vocal. And that proverbial "ice-pick" tone we always dump on? Actually, it's pretty freakin' useful. That sped-up crazy-compressed guitar at the beginning of the Sunshine Band's "Get Down Tonight" would destroy small rodents by itself, but instead it gets you floating just before the nasty high-hat-and-snare grooves and the throbbing bass send you to boogie town.

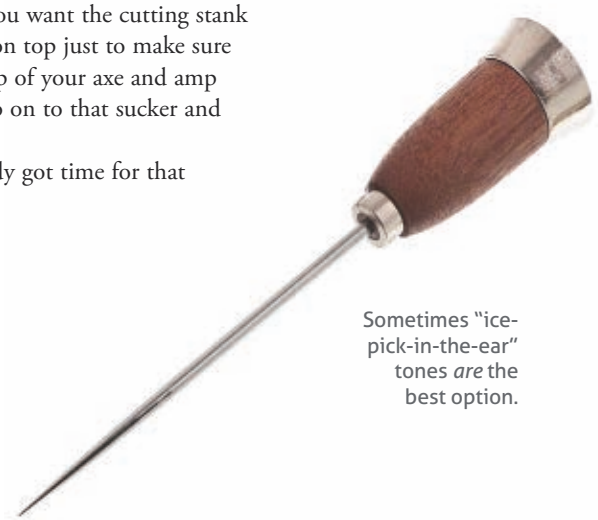
But it's not just the tones. Each of those bands is/was full of badass players, but their songs matter because the musicians could write a simple part that stuck in your cranium for, like, ever. And each of them wasn't afraid to step completely out of the mix to let the song breathe.

Technique is also part of the equation. But it's not about who has the nimblest wrist this side of the continental divide. And it's not a swivel-action coordination contest between your wah foot and your picking hand. It's about hypnosis.

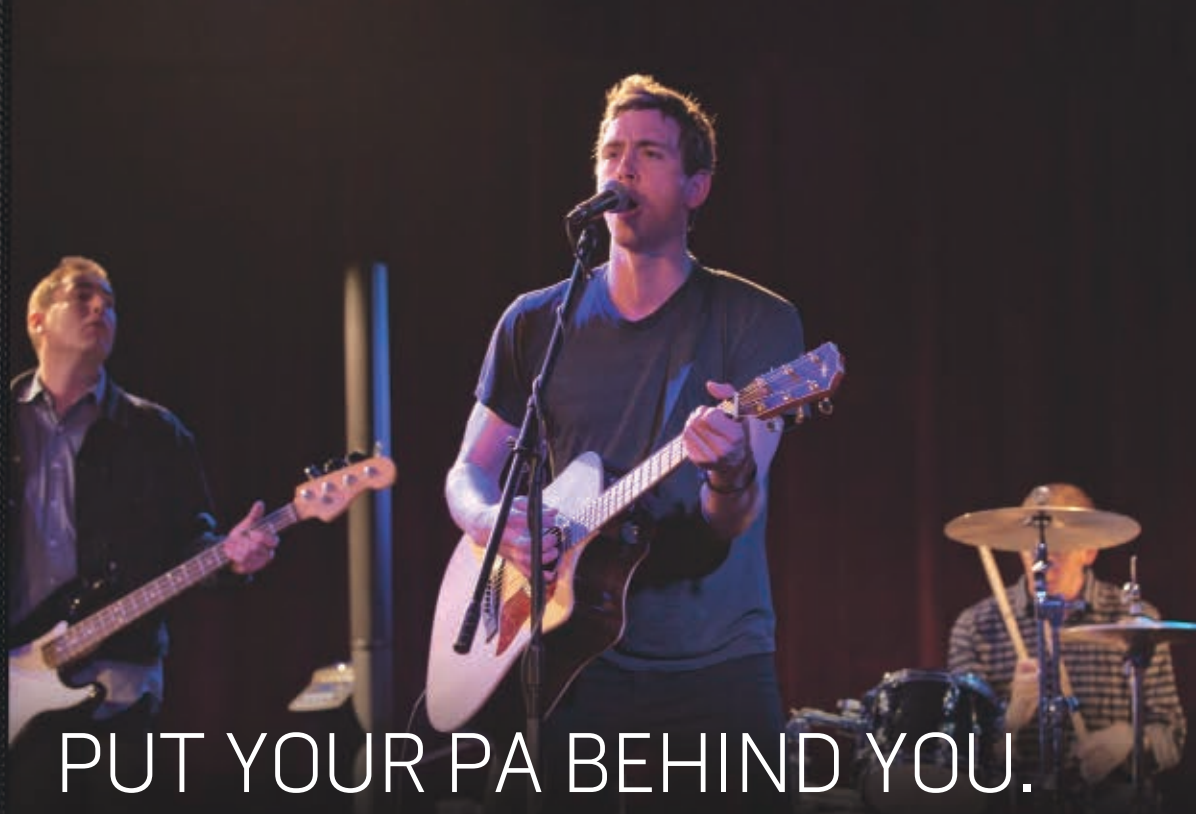
There are gear considerations, too. But all of these things in isolation are worthless. It's the pairing of it all that works. And it doesn't work for just funk. No matter what you play, see if you can't occasionally get your rig to sound like a banshee whose reedy-as-hell shriek would make heads explode if its ratty-ass rhythm didn't combine with the rest of the band and channel the energy to everyone's butts. If you can't get your bridge or neck pickup to sound thin as a shiv, turn on your wah and leave it toe down. Get a metal pick and start working on riffs and rhythms that are exclusively spasmodic downstrokes. And those telephone-wire strings you've been using might make you feel like SRV, but if you want the cutting stank tone, try going down to .010s or .009s. And maybe throw a horrid-toned fuzz on top just to make sure the damage is done. Or, ignore your pedals completely and let the primeval snap of your axe and amp work their voodoo. Whatever you do, once you stumble upon a badass riff, grab on to that sucker and repeat it like a snake charmer messing with a cobra.

Just remember: Like everything else, funk can be predictable. But ain't nobody got time for that kinda funk.

Shawn Hammond
Chief Content Officer
shawn@premierguitar.com



Sometimes "ice-pick-in-the-ear" tones *are* the best option.

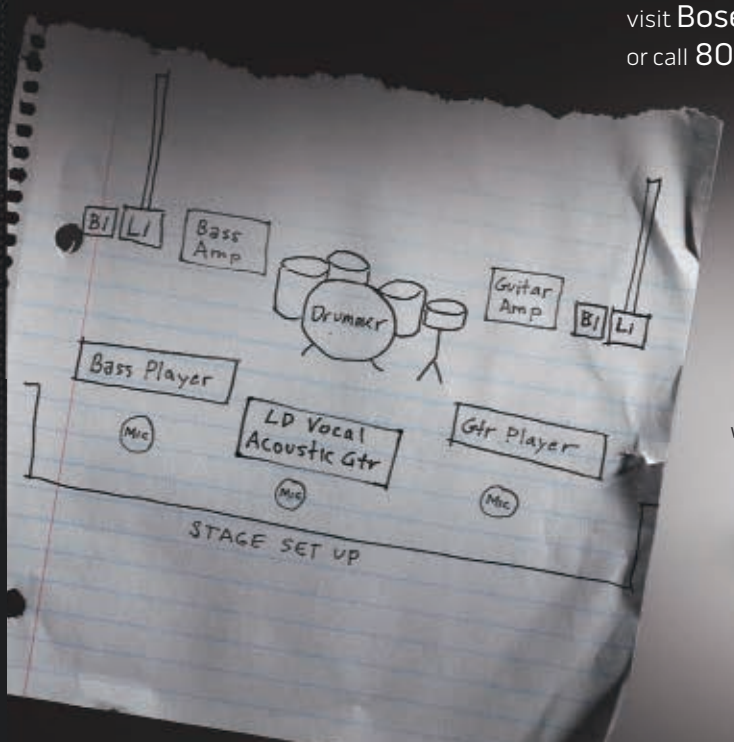


PUT YOUR PA BEHIND YOU.

BOSE® L1® MODEL 1S SYSTEM

Our L1 Model 1S is the latest addition to the L1 family, combining PA and monitors into a **single portable system.** With as few as two systems behind the band, you'll fill the room with clear, even sound and control the mix on stage and in the audience area. And, the proprietary 12-speaker Bose articulated line array provides **180 degrees of clear, even sound,** allowing you to hear what the audience hears. Plus, with no speaker stands and fewer connections, you'll spend **less time setting up** and tearing down — and more time playing a great show.

To learn more about Bose L1 systems,
visit Bose.com/L1systems11a
or call 800-905-1852.



L1 Model 1S
with B1 bass

©2014 Bose Corporation.
CC014363

FEEDBACK LOOP

Home Is Where My Guitars Are

I just returned from three weeks in Puerto Rico, visiting relatives in Arecibo on the North Central Coast. I put the latest nine issues of *PG* and two issues of *AG* magazines in my luggage because I didn't want to carry a guitar along. We'd originally planned to drive around, see and do things, and hit the beaches. However, three days into the visit it started raining and my wife wanted to finish some oil paintings for friends. I read and reread every article and advertisement in all the magazines during the next two weeks. You guys put out some pretty good stuff for all types of guitar players and wannabes.

When I started reading the "pedal issue," I was looking for a replacement for my stolen 20-year-old Boss ME-5—something to sound like Scotty Moore in the early rockabilly and Elvis Sun Records days. Then I read about Electro-Harmonix, and Strymon, and Maxon, and Love Pedal, and Fulltone and a dozen others that I'm going to have to check out on YouTube and/or a local music store. I appreciate all the contents of *Premier Guitar* and the efforts of all the writers and staff. For me, home is where my guitars are, and it's good to be back in the red, white, and blue.

—Len Canter,
Winter Park, Florida

Sidenotes

Just wanted to add my 2 cents on the great article about being a sideperson ["The Codependent Guitarist: The Art of Being a Sideman," May 2014]. I started doing that way back in 1972, still do it on occasion, and would be doing it full-time had I not become disabled. Everything in the article is awesome advice and believe me when I say "been there, done that, got the CD, and the DVD." I play bass, acoustic and electric guitar, sax, trumpet, trombone, and ... wait for it ... Native American flute. Before my accident I could get by on keyboards and drums, and other horns if necessary, and I also sing pretty good backup. The first thing my manager ever said was: "So you play guitar. Want to make better money? Add all those other instruments you learned as a music major in college." I did as he said and the first year my money doubled. I was never interested in my 15 minutes or longer of fame. I absolutely loved being a sideperson as that was what I was best at and I knew it. Besides I wanted to travel, and having a job that paid me to do what I would absolutely do for free because I love it so much was icing on the cake. There's a lot of degrees of success in this biz and the comments about trying to run a band and do bookings, rehearsals, and dealing with all the headaches were absolutely right on—try it and you'll stop your bitching. Anyone thinking about full-time music should take all the advice given in this article. Thanks yet again for such a great read and the best magazine for the musician in all of us!

—Carolyn Donovan,
via email

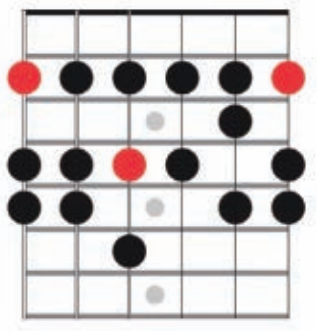
Bottom Feeder Love

I really enjoy Mr. Will Ray's articles on low-cost fun guitars. He shows how you can have enthusiasm and just as much fun under $200 as you can have over $2,000. For me, it helps to keep things in perspective, and realize it's all about the playing and not about the instrument. Thank you Will!

—Magic Biddie,
via premierguitar.com

Whoops!

In July 2014's Fret 'n' Wylde column, we had a graphic-file snafu resulting in the wrong image for Example 1. The correct diagram is:



Keep those comments coming!

Please send your suggestions, gripes, comments, and good words directly to **info@premierguitar.com**.

Socialize with Us!

"Any fans of 12-string guitars out there? What model do you have (or would you like to own) and why? @premierguitar The Ricky if I had the money. If not, the Danny!"

—@Gerontius1

So many trolls in the world. I sometimes expect musicians to be better people. After all, we share a passion for something that's sometimes more profound than words. But all it takes is to suggest that you enjoy a particular guitar, artist, or genre and people will call you an idiot, a poser, or worse. There's an old saying that "talking about music is like dancing about architecture," but it's not that words fail ... unfortunately people are just pissed off at the world anymore and can't discuss anything without unloading their venom. Thanks for a great magazine. I'll continue to subscribe. I love the John Bohlinger reviews and all that stuff, but the Facebook stuff is just too much troll-fodder.

—Bill Perry

fano guitars

it's not just a guitar

It's a Fano

Top performers and artists talk the same way about our guitars. They simply call it a Fano.

For in that name represents design values that started a movement– retro styling, best of breed design with modern amenities and construction.

At Fano, we take those elements and combine them to create unique sonic and visual standards that feel immediately familiar.

Once you play a Fano, you'll never be able to call it just another guitar. You'll always call it by it's name – Fano.

Find Your Fano

at FanoGuitars.com
Inventory of available Fanos

PREMIER BUILDERS GUILD

Two-Rock · fano

www.fanoguitars.com

CONTENTS *August 2014*

ARTISTS

81

Judas Priest
The Brit metal pioneers release their first album with guitarist Richie Faulkner.

36

Boom Boxes
We look at the five classic amps that define the music we hear—and the gear we play.

61

Gibson's GA-5
Vintage amps are pricey, but if you know what to look for, you might find a bargain.

134

DIY 18-Watters
We built two Marshall 18-watt clone kits. Which was more fun to make?

97

Aram Bajakian
Whether playing solo or with artists like Lou Reed and Diana Krall, this NYC guitarist pushes boundaries.

109

Sharkmuffin
With an EP generating buzz and a full-length on the way, this trio looks ready to swim with alt-rock's big fish.

119

Fu Manchu
The stoner-rock torchbearers go big on *Gigantoid*.

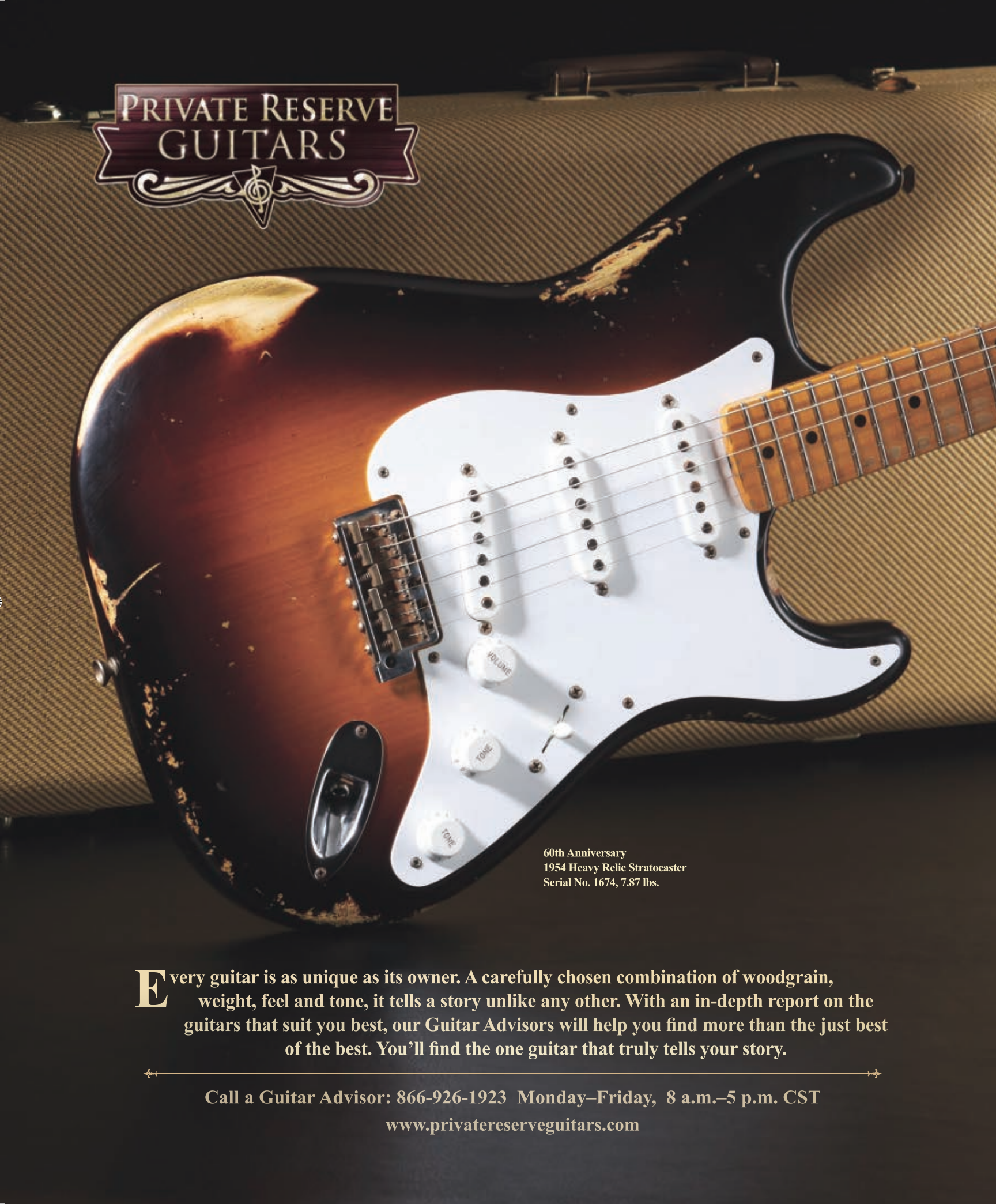
"Whatever music you think sucks is probably the music you should check out, and the music that will teach you the most if you explore it a bit."

—Aram Bajakian, p. 97

p. 36

REVIEWS

158 **Keith McMillen** SoftStep 2 MIDI
158 **EHX** Lumberjack Log Overdriver
159 **Lovepedal** Hi Volt
159 **Korg** Rimpitch Tuner
160 **Ruokangas** Mojo King
162 **Fender** Dimension Bass
165 **Juliet Collective** Orangecream
169 **Rivera** Venus Deux
172 **Gibson** J-15 and J-29
177 **Ibanez** TS808DX
180 **Born** OG Carve
183 **MXR** M68 Uni-Vibe
186 **Reverend** Meshell Ndegeocello Fellowship



60th Anniversary
1954 Heavy Relic Stratocaster
Serial No. 1674, 7.87 lbs.

Every guitar is as unique as its owner. A carefully chosen combination of woodgrain, weight, feel and tone, it tells a story unlike any other. With an in-depth report on the guitars that suit you best, our Guitar Advisors will help you find more than the just best of the best. You'll find the one guitar that truly tells your story.

Call a Guitar Advisor: 866-926-1923 Monday–Friday, 8 a.m.–5 p.m. CST

www.privatereserveguitars.com

CONTENTS *August 2014*

On the Cover:
A 1970 Hiwatt DR103 head and 4x12 cab. Photo courtesy of Hiwatt Amplification

"Like sulphuric acid, digital distortion eats through almost anything, so it can be a great choice for dense passages of aggressive music."

—Joe Gore, The Recording Guitarist, p. 106

22 Gear Radar
25 Opening Notes
156 Tools for the Task
188 Staff Picks
206 Esoterica Electrica
208 Last Call

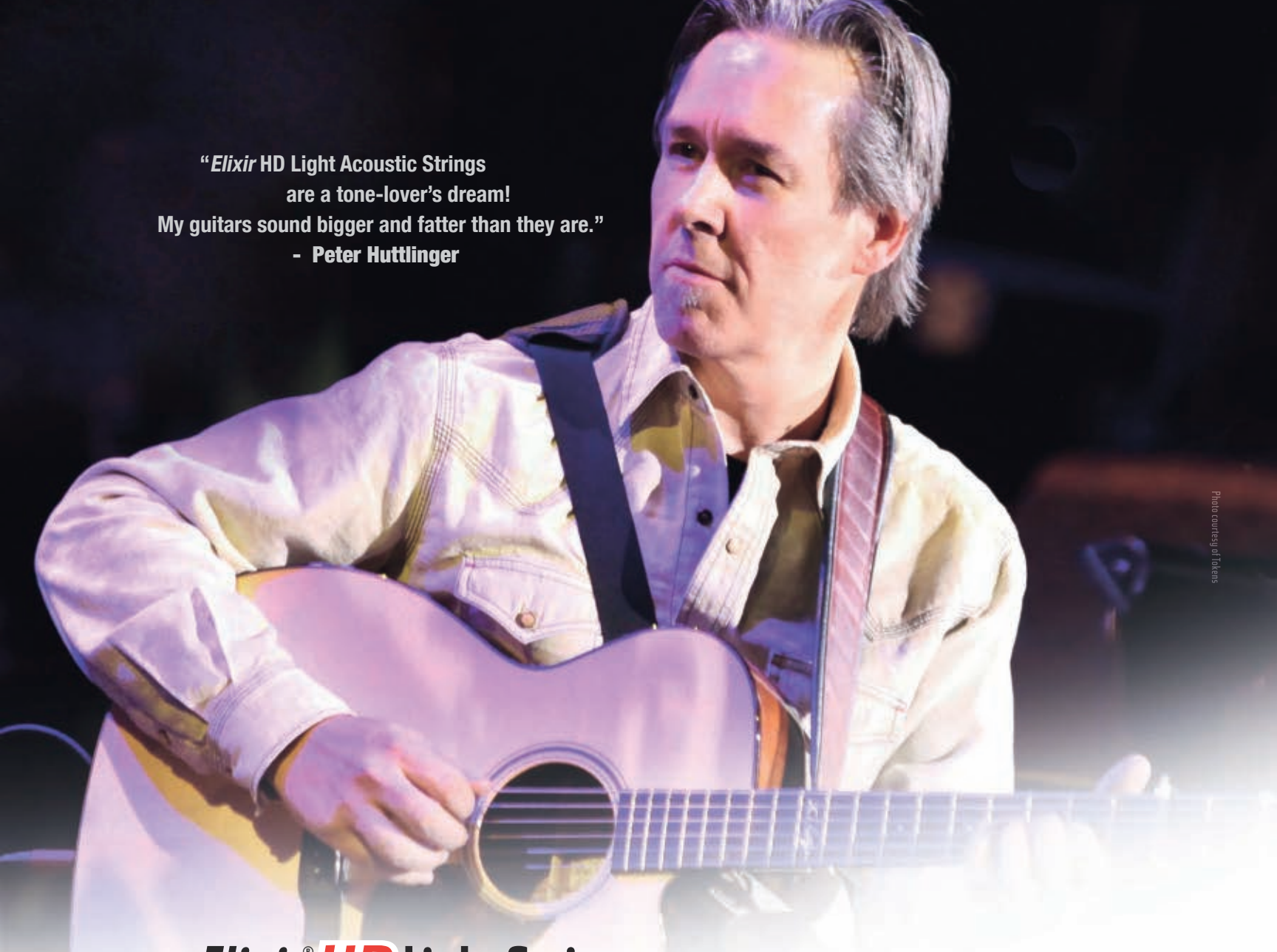
GEAR

30 Rig Rundowns
34 Trash or Treasure
58 Vintage Vault
78 Tone Tips

HOW-TO

94 Acoustic Soundboard
106 The Recording Guitarist
116 Guitar Shop 101
130 Bass Bench
128 On Bass
132 Mod Garage
152 Ask Amp Man
154 State of the Stomp

Photo by Barry Brecheisen



Elixir® HD Light Strings

A new voice to love – for longer

- Bolder, stronger high end
- Fuller, warmer low end
- Balanced voice across all strings
- Ideal for narrow bodied guitars
- Comfortable, balanced hand feel
- .013, .017, .025, .032, .042, .053

Available in Phosphor Bronze and 80/20 Bronze, the new HD Light Strings deliver the extended tone life players expect from *Elixir* Strings.

www.elixirstrings.com/hdlight

Peter Huttlinger plays
Elixir Strings HD Light Phosphor Bronze
with NANOWEB® Coating, .013 - .053

facebook.com/elixirstrings

twitter.com/elixirstrings

youtube.com/elixirstringsmedia

GORE, ELIXIR, NANOWEB, POLYWEB, GREAT TONE · LONG LIFE, "e" icon, and other designs are trademarks of W. L. Gore & Associates. ©2014 W. L. Gore & Associates, Inc.

ELX-381-ADV-US-JUN14

ONLY ON PremierGuitar.com...

Your guide to the latest stories, reviews, videos, and lessons on PremierGuitar.com

FEATURED

Mammoth Riffage

Mastodon's Bill Kelliher and **Brent Hinds** check in to tell us about the inspiration for the tritone-laced riffs for "High Road," the lead single from the band's sixth release, *Once More 'Round the Sun*. Though the melancholy setting of Luxembourg provided the background to which it was written, Kelliher says this album is "happier and catchier" than earlier material. In other artist coverage, blues kingpin **Kenny Wayne Shepherd** explains his five most essential pedals, which not only includes the classic Tube Screamer and Vox wah, but some modern surprises.

Then **Andy McKee** gives us the lowdown on his upcoming fall tour and his new four-song EP *Mythmaker*—an album that marks his first time ever playing electric guitar and piano on record.

Bonus: A web-only review of **Source Audio's Soundblox 2 Manta Bass Filter**.

Read all of this and more at premierguitar.com/aug2014

LESSONS

Access all of our lessons online, for free, with streaming audio and downloadable, printable notation PDFs.

RHYTHM RULES
Brian Setzer's Rockabilly Antics
By Levi Clay

SHREDMENTAL
The Dancer and the Drummer
By Brendon Small

DEEP CUTS
David Hidalgo's Sophisticated Blues-and-Beyond Moves on "The Town"
By Adam Levy

DIGGING DEEPER
African Guitar 101
By Shawn Persinger

NEW FOOTAGE

In our latest DIY video, "**Amp Safety 101**," (***premierguitar.com/articles/21057-diy-amp-safety-101***) Nashville amp tech and builder **Kye Kennedy** describes the steps you need to take to protect yourself from potentially lethal voltages before working on a tube amp. This includes a detailed explanation of how to properly discharge filter capacitors. A must-see for all tube amp owners and modders! Then check out our latest Rig Rundowns with **Brent Mason**, **Oz Noy**, and **Failure**, plus gear demos of the **Juliet Collective Orangecream** distortion pedal, **Born Guitars OG Carve** electric, **Gibson's J-15** and **J-29** acoustics, and **Fender's Dimension Bass**.

Above Left: Photo by Travis Shinn

GUITARDOM'S TOP TWEETS

"That's right! A Billy G pick from the man himself. Have mercy."
—@marcmaron

"God loves the middle position on a Les Paul, and the neck pickup on a Tele."
—@jasonisbell

"I'm peaking on acid right now. Someone call me to come play on their record."
—@flea333

"In my living room...@TheBonnieRaitt helped me pick this out in 1988. I don't play it much any more but love it."
—@metheridge

THE NEW SRM SERIES

BEYOND PROVEN

The Mackie SRM is the most widely used portable loudspeaker ever designed. Now, packed with tons of power and some amazingly innovative new sound-enhancing tools, SRM is ready for your high-output application. With millions in service since 1999, SRM is more than proven... it is truly a legend in live sound.

BIG POWER, HIGH OUTPUT

1000W

Supercharged and then some, SRMs now feature a powerful new 1000W amp platform so you can reach more people than ever before. Paired with new custom high-output drivers and Mackie Smart Protect™ DSP, you've got a solid, reliable PA solution perfect for your high-output application.

CLASS-D AMPLIFIER

1000W ultra-efficient Class-D amplification

HIGH-OUTPUT TRANSDUCERS

Premium titanium-dome compression driver and high-output woofer

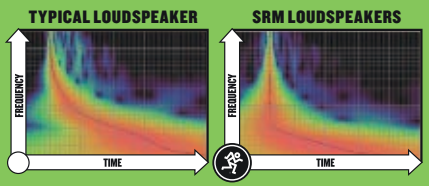
SMART PROTECT™ DSP

Intelligent limiting and system protection

THE BEST-SOUNDING SRM EVER

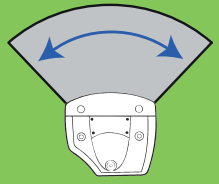
Like the game-changing original SRM, which brought studio-quality sound to the masses, the new SRMs deliver premium high-definition sound to the everyday portable PA. With optimization at every single stage, SRM delivers unmatched performance and unbelievable sound quality.

ACOUSTIC CORRECTION



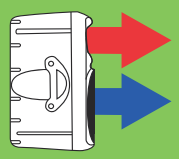
Patented acoustic correction algorithms smooth out inherent physical sonic issues

ULTRA-WIDE DISPERSION



Accurate, wide dispersion of all frequencies up to 45° off axis

DRIVER TIME ALIGNMENT



Time aligns driver output for consistent, articulate sound

ORIGINAL SRM
SINCE 1999

CHECK OUT THE ALL-NEW SRM350/SRM450

INTUITIVE SOUND TOOLS

1 APPLICATION-SPECIFIC SPEAKER MODES

Truly re-voice the speaker with a push of a button. Four speaker modes deliver ideal performance for the application at hand.

2 AUTOMATIC FEEDBACK DESTROYER

Instant assessment and correction of feedback so you can perform fearlessly. Four narrow 1/16th octave filters get rid of nasty feedback without affecting overall sound quality.

3 WIDE-Z™ INPUTS

Both of SRM's input channels feature Mackie Wide-Z inputs that handle anything from mixers to acoustic guitars with a single knob twist.

4 COMBO INPUTS

Connect XLR or 1/4" into these handy little combo jacks.

5 STEREO RCA INPUTS

Great for connecting anything from laptops to music players to, well, anything with an RCA out.

6 SMART THRU OUTPUT

XLR output for connecting another speaker. Choose to send out just channel 1's signal or the whole mix.

7 LED ON/OFF

Defeat the front LED for applications that don't favor cool green lights.

FLEXIBLE BY DESIGN

The ideal utility speaker, SRMs can be pole-mounted, flown or used as a floor monitor.

LEGENDARY TOUGHNESS

The near indestructible, extremely rugged SRM is the stuff of legend. The thick polypropylene cabinet is scratch-resistant, impact-resistant and maybe even apocalypse resistant*.

MACKIE®

www.mackie.com

*Not tested or verified, but still totally true. Try to prove us wrong.

©2014 LOUD Technologies Inc. "Mackie." and the "Running Man" figure are registered trademarks of LOUD Techonologies Inc. All rights reserved.

GEAR RADAR

New products on the horizon.

1
ELECTRO-HARMONIX
B9 Organ Machine
Featuring nine different organ types, the B9 has two different outputs (organ and dry), the ability to control the harmonic percussion found on vintage organs, and a dedicated mix control.
Street $220
ehx.com

2
ARISTIDES
050
The first-ever Arium-built bass has a 34" scale with a 12"-radius fretboard, C-shaped neck, a 1.85" GraphTech nut, weighs about 9 pounds, and Seymour Duncan Quarter Pounder pickups.
MSRP $4,967
aristidesinstruments.com

3
CRUZTOOLS
Stagehand Compact Tech Kit
The survival pack includes a 19-piece magnetic bit set and screwdriver-style bit holder, hex wrenches, screwdrivers, sockets (in both inches and metric), a capo, precision 15-blade thickness gauge, string cutters, and string winder.
Street $34.95
cruztools.com

4
MOJOTONE
The Paul Waggoner Hornet
The Between the Buried and Me guitarist helped design a humbucker set with a wide variety of progressive tones—the bridge utilizes an alnico 4 magnet while the neck uses a ceramic magnet and has a built-in, coil-tapping option.
MSRP $120 (each)
mojotone.com

5
GIBSON
ES-Les Paul
Combining elements of the ES-335 and Les Paul, the ES-Les Paul features custom humbuckers, a mahogany neck, and Kluson tuners.
List $2,799
gibson.com

6
WAMPLER
Latitude Tremolo Deluxe

The new trem from Wampler is aimed at players who need a variety of controls such as subdivisions, wave forms, and tap tempo.

Street $239

wamplerpedals.com

7
FENDER
American Standard Jaguar Bass

The first U.S.-made Jaguar bass features a P/J pickup configuration with a split-coil Precision pickup featuring alnico 5 magnets, series/parallel switching, and an active/passive switch.

Street $1,499

fender.com

8
JAMHUB
Tracker MT16 Multitrack Recorder

The latest from JamHub allows you to record up to 16 tracks simultaneously and save them to either an SD card or a portable hard drive.

Street $400

jamhub.com

9
STOMP UNDER FOOT
Serenity Overdrive

SUF's OD has a warm, smooth tone that goes from low-gain crunch to a very full, overdriven sound on the verge of distortion and plays well with a hot tube amp.

Street $165

stompunderfoot.com

10
SCOTT WALKER GUITARS
Solace

Walker's newest handbuilt 6-string features a black matte Formica top and back, tempered basswood body-core, a maple neck, and is loaded with a blade-style, cigar-tube pickup.

Street $2,500

scottwalkerguitars.com

THE WAY A SHRED GUITAR SHOULD BE

PARALLAXE

FEATURES

STEPHEN'S CUTAWAY

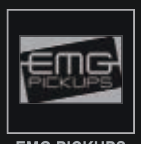
FLOYD ROSE

SPRING SILENCERS

OVERSIZED BRASS BLOCK

GROVER TUNERS

USA PICKUPS



EMG PICKUPS

BUZZ FEITEN

SUPER JUMBO FRETS

FULL CONTACT BRIDGE

CHECK THEM OUT AT
A DEALER NEAR YOU!

PXS SERIES

PXL SERIES

PXM SERIES

FOLLOW US:

LIMITED LIFETIME WARRANTY
WWW.WASHBURN.COM/PARALLAXE

Washburn GUITARS

Washburn is a Division of U.S. Music Corp., A Division of Jam Industries, LTD. | 1000 Corporate Grove Drive | Buffalo Grove, IL 60089 | 800.877.6863

OPENING NOTES

Warren Haynes

May 13, 2014
Symphony Hall
Boston, MA
Photo by Rich Gastwirt

Warren Haynes channels the late Jerry Garcia through the tri-DiMarzio-packed, Doug Irwin designed "Wolf" guitar that Garcia bought and first started playing in 1973. The Wolf was won at auction by a collector for just shy of $800,000 in 2002, but the famed axe continues to make occasional live appearances.

OPENING NOTES

Sean Lennon

May 17, 2014
El Rey Theatre
Los Angeles, CA
Photo by Lindsey Best

The Ghost of a Saber Tooth Tiger's Sean Lennon bends big with his No. 1, a 1963 Fender Jazzmaster that he picked up in 2000. It's been re-fretted and outfitted with a bridge and vibrato from Mastery Bridge since, but is otherwise stock.

OPENING NOTES

Jack Johnson

May 23, 2014
City Hall Plaza
Boston, MA
Photo by Tim Bugbee

Boston Calling music festival headliner Jack Johnson gets his Friday evening set started with one of his trusty Cole Clark Fat Lady FL2AC dreadnoughts powered by a stock Cole Clark-designed pickup system.

OPENING NOTES

Andrew Stockdale

May 18, 2014
Crew Stadium
Columbus, OH
Photo by Barry Brecheisen

The Wolfmother frontman brings the goods to a hungry crowd during the band's Rock on the Range performance with his go-to, a 1969 Gibson SG that's stock outside a Bigsby modification.

THE TWILIGHTER

FEATURING TRUE PITCH-SHIFTING VIBRATO

AVAILABLE IN A 1X12" MONO OR 2X12" STEREO

HANDWIRED, 6V6 POWER TUBES, REVERB, AND TREMOLO

TRUE DIMENSIONAL SOUND®

VISIT US AT MAGNATONEUSA.COM

MADE IN USA

© 2014 MAGNATONE

BRENT MASON

FACTOID
Mason's legendary 1968 Tele once had a Kahler whammy installed on it.

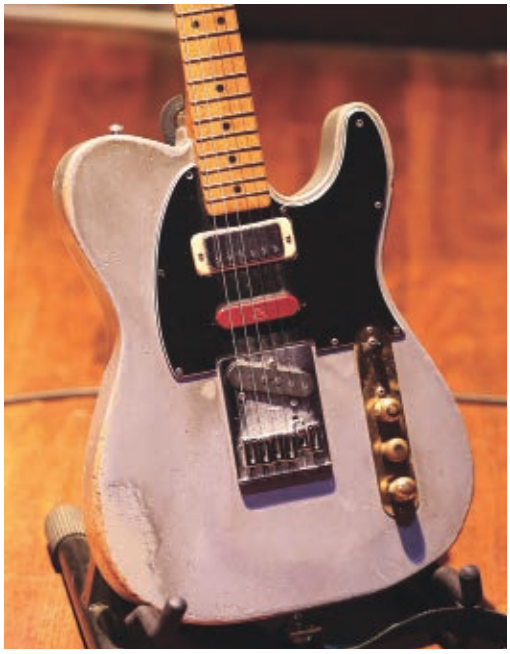
Premier Guitar's *John Bohlinger met with Brent Mason after a session at Nashville's celebrated Blackbird Studio. Mason, one of the most recorded guitarists in history, talked guitars, pedals, and amps ... and played his ass off.*

GUITARS

Above Right: Mason has delivered some of the most incredible Tele-whacking, chicken-pickin', double-stopping, face-melting, mind-blowing solos in country music. For most of these sessions, he used a bastardized 1968 Fender Telecaster that he bought used in the '80s for a few hundred dollars.

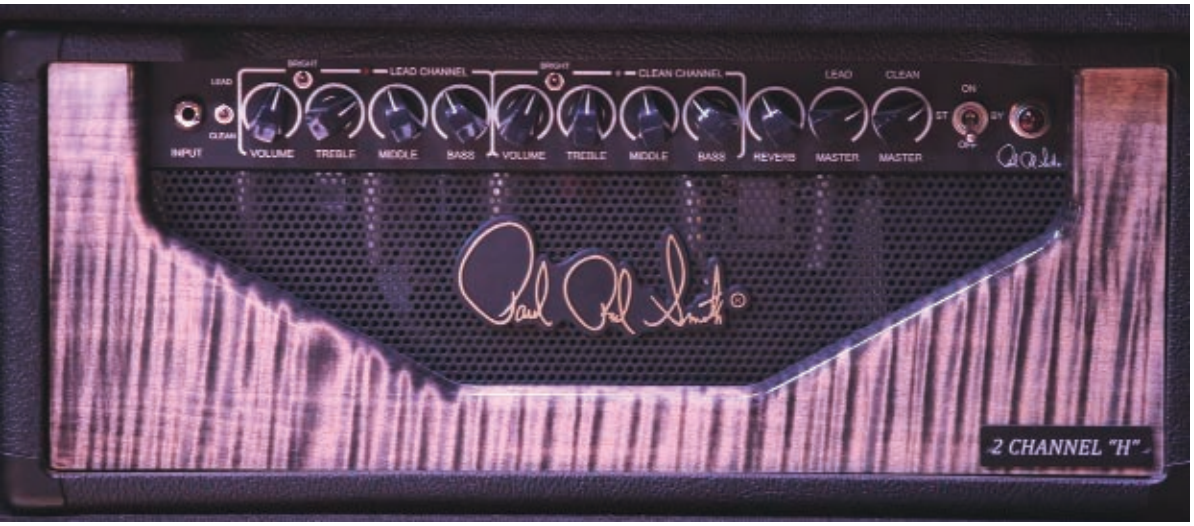
Sporting a car primer finish applied by the previous owner, this Tele has been customized with a Joe Glaser B-Bender and a Gibson mini-humbucker at the neck position. A standard Tele 3-way switch controls the neck humbucker and Tele bridge pickups, while a blend knob brings in a Seymour Duncan Vintage Stack that Mason added as a middle pickup.

Bottom Right: For moody mellow tones, Mason goes to his stock, pre-Fender Gretsch 6120 Duane Eddy model. Mason takes advantage of the 6120's Filter'Ttron pickups for twang and the stock Bigsby tremolo for vibe.



Above: The session great's PRS Brent Mason Signature model is decidedly non-Tele-like. Featuring a bolt-on maple neck, a PRS tremolo, Phase III locking tuners, Narrow 408 humbuckers in the bridge and neck positions, and a 305 single-coil in the middle, this versatile guitar has coil-splitting options that let Mason dial in a huge variety of sounds.

To watch this Rig Rundown, head online to premierguitar.com/ articles/20964-rig-rundown-brent-mason



AMPS

Mason uses three heads and two cabinets. When he wants a different tone, he unplugs his 1/4" cable from one amp and plugs it into another. Same with the speaker cable. His top amp is a 1965 Fender Bassman customized by Nashville amp guru Kye Kennedy. Number two is a PRS 2-channel "H" for big angry tone. Last in line is a Matchless DC-30 he bought while tracking the first Shania Twain album. Cabs are a Little Walter tweed 2x12 loaded with 75-watt Celestion G12T-75s and a vintage Bassman 2x12 with Celestion Vintage 30s.

PEDALBOARD

Mason's board has a Dunlop MC404 CAE Wah, an Ernie Ball 6166 volume pedal, Wampler Ego Compressor, Boss GE-7 equalizer customized by Analog Man, a Visual Sound V2 Truetone Clean Boost, an Xotic RC Booster, an Xotic BB Preamp, and a Creation Audio Labs MK 4.23 Clean Boost. For dirt, there's a Way Huge Red Llama followed by Mason's signature Wampler Hot Wired V2 Overdrive. Mason also uses an Electro-Harmonix Stereo Memory Man, a Pigtronix Tremvelope, a Wampler Faux Tape Echo, a Wampler Faux Spring Reverb, and a Line 6 MM4 Modulation Modeler. His tuner is a Boss TU-2, and he powers the whole enchilada with several Voodoo Lab Pedal Power 2 units.

Kryz Reid

THIRD EYE BLIND

FACTOID

Kryz Reid, Irish by birth, lead guitarist in an American band, is fluent in Japanese.

Premier Guitar caught up with Kryz Reid, the Dubliner who holds the coveted lead guitar slot for American alt-rock giants Third Eye Blind. The band was hunkered down at Soundcheck rehearsal hall in Nashville, tuning up for a pending tour. During a break, Reid showed us nine very seductive guitars (each, strangely enough, named after a Star Wars character), and revealed a bit of gear-break-down paranoia when he described his backups for his backup pedalboard.

GUITARS

Reid names all his guitars after Star Wars characters from the Dark Side. His No. 1 is "The Emperor," a custom Gibson '59 Les Paul, made with aged wood and outfitted with relic'd hardware.

Next is "Vadar," a 1979 Gibson The Paul, which was the first good guitar Reid bought. The guitar sports a Seymour Duncan Antiquity humbucker in the neck position and an Alnico II at the bridge.

Another vintage gem is "Sidious," his stock 1966 Jazzmaster that's currently tuned to F♯–A–C♯–F♯–G♯–E.

To watch this Rig Rundown, head online to
premierguitar.com/articles/20851-rig-rundown-third-eye-blinds-kryz-reid

AMPS AND CABS

Reid travels with a main rig and a similar backup rig. The main rig includes a '93 Custom Shop Fender Tone-Master and matching cab for clean tones.

The main rig's dirty tones come from a 6L6-stocked 1965 Marshall plexi driving a Mesa 4x12 cab. (Reid mistakenly calls the Marshall a '67 in the video, but who can keep track of this much vintage gear?)

EFFECTS

Dave Phillips at L.A. Sound Design built both Reid's "A" and "B" effects rigs. Phillips wires everything with Mogami 2524 cable, except for the Divine Noise 50/50 (half curly, half straight) cable that connects Reid's guitar to the pedalboard.

The A rig consists of an RJM Effect Gizmo controlled by an RJM Mastermind GT MIDI foot controller, a custom A/B box, two custom-made Mission Engineering expression pedals, an Ernie Ball volume pedal, a Boss TU-2 tuner, and a TC Electronic Ditto Looper.

The B rig essentially mirrors the rack with an all-in-one pedalboard that's used on fly dates or as a redundant system on other dates. The B rig signal chain runs from the guitar to a Boss TU-2 tuner, then a Radial Bones Twin-City ABY switcher (the switcher's A signal stays on this board; its B signal goes to a "C" effects rig for a backup on fly dates).

Custom Kraft Ambassador

BY ZACHARY FJESTAD

Q: **Hey Zach,**
I have this Custom Kraft electric guitar that I would like to know the value of in its current state, and also what it might be worth restored. I got it from an auction about 15 years ago for the whopping sum of $2. What can you tell me about it?
Thanks
John Smith in West Valley City, Utah

Right: This cool-looking 1960s Custom Kraft Ambassador needs a bit of work, but refinishing isn't necessary or recommended.

Inset: Custom Kraft guitars were distributed by St. Louis Music as their house brand in the 1960s until production ceased in 1968.

A: **Hey John,**
These 1960s guitars just ooze coolness! I especially like the star on the pickup and the control numbers located on the pickguard instead of the knobs.

Guitars were becoming big business in the late 1950s and early 1960s, and just about every manufacturer, retailer, and distributor was jumping on the bandwagon. St. Louis Music—a distributor/importer/manufacturer of musical instruments—was no different. The company was founded by Bernard Kornblum in 1922 and started out as an importer of German violins, but quickly expanded into a full-line musical distributor.

By the mid-1950s, St. Louis Music was distributing a wide range of guitars and amplifiers from manufacturers such as Alamo, Harmony, Kay, Magnatone, Rickenbacker, and Supro. Competition was fierce from the large catalog retailers like Montgomery Ward and Sears, so every distributor and retailer was trying to get the upper hand. Instead of selling a line of guitars that numerous other companies could, why not create their own brand? St. Louis Music did exactly that. (House brands became very popular throughout the '60s, and companies like Kay, Harmony, and Valco were producing guitars for several different distributors/retailers.)

St. Louis Music launched Custom Kraft as their house brand in 1961. The first guitars to bear the Custom Kraft name were a line of semi-hollowbodies built by Kay. In 1963, Custom Kraft appeared on their line of solidbody double-cutaway electrics (likely built by the Valco company) called the Ambassador, the model you have. Other archtop and flattop acoustics were also built by Kay to fill out the entire Custom Kraft line.

Custom Kraft guitars were offered by St. Louis Music through the late '60s until Valco/Kay (by this time they were the same company) closed in August of 1968. With Custom Kraft in the history books, St. Louis Music then introduced the Electra line, followed by the trademarks Westone and Alvarez. Today, St. Louis Music is a division of U.S. Band and Orchestra Supplies Inc., and is one of the largest distributors of musical instruments and accessories in North America.

Your Ambassador has sort of an offset SG-style body with a bolt-on neck, a 19-fret fretboard with dot inlays, a single DeArmond-style pickup, and individual volume and tone knobs. With simple features like this, it's obvious it was intended as a beginner model.

The color is called metallic blue, which looks very similar to the well-known Lake Placid blue. In *excellent* condition, this guitar would be worth between $250 and $350. With a missing tone knob, broken volume knob, and heavy patina on the bridge, you're probably looking at $200 to $250. That's not bad considering your $2 investment!

Restoring/refinishing a guitar is a delicate matter and should be given much consideration before proceeding. When a guitar is refinished, you can never go back to the original finish, and *that's* what collectors are looking for. Oftentimes, an individual wants to totally restore a guitar for sentimental reasons (perhaps it's their father's or grandfather's instrument). But keep in mind that the value will typically be reduced by about half of the same guitar in original-mint condition, even if you get it back to near-mint condition by refinishing.

For a $350 guitar, that's not going to make much difference. After looking at pictures of your guitar, however, it doesn't appear that it needs to be refinished. It just needs a few things replaced. Replacement parts for guitars are certainly available, but since this isn't a mainstream guitar, you might have a tough time finding new knobs, a new bridge, etc. Your best option may actually be finding a "donor" guitar of the same vintage for these parts.

No matter what the guitar is, if you can pick up a vintage guitar from the 1960s for $2, it's *definitely* a treasure—especially when it has rare features like this! (And don't let your friends tell you otherwise.)

ZACHARY R. FJESTAD *is author of Blue Book of Acoustic Guitars, Blue Book of Electric Guitars, and Blue Book of Guitar Amplifiers. For more information, visit bluebookinc.com or email Zach at guitars@bluebookinc.com.*

Quilter
Guitar Amplifiers

Steelaire

The all new Quilter Steelaire comes
in every flavor except one...

...heavy

Ward Williams (Randy Houser)
Steelaire Pro

Tim Sergent (Dierks Bentley)
Steelaire Rack Mount

Steelaire Pro
- 35 Pounds
- 200 watts
- Detachable head

Steelaire Combo
- 35 Pounds
- 200 watts
- Slimline cabinet

Steelaire Rackmount
- 200 Watts
- 7 Pounds

http://www.quilterlabs.com/steelaire

HIWATT 100
STANDBY MAINS
TREBLE
MIDDLE
PRESENCE
MASTER VOL
ON
WATT

BOOM BOXES

5 Amps That Define the Music We Hear —and the Gear We Play

BY DAN FORMOSA

If you play electric guitar, you don't just play electric guitar. You also play the amplifier—because that's what ultimately projects the sound. In fact, you're playing a myriad of components in the physical and electronic chain between your fingers and the sound waves emanating from your speakers. Every one of those components has an effect on your tone, which means you could easily argue that your amplifier is the most complex tone-producing element in your signal path.

Here we're going to revel in the nuance, the history, and the dedication of the people behind five of the world's most celebrated amplifiers—a quintet of classic boxes whose importance in the pantheon of guitar tones cannot be overstated. Their definitive sonics have shaped music as we know it over the last half century, and by extension their designs have paved the evolutionary path of amplifier development past, present, and future.

Did we leave any amps out? Sure—how could we *not*? There's no shortage of ways for imaginative guitarists to get the right tones for the occasion with all sorts of gear. What matters most is creativity, passion, and attitude—even iconic gear doesn't make magic happen automatically. But the beauty of the designs chronicled here is how they defied tradition—even if just a smidgen—and turned unusual simplicity into uncommonly great tones for adventurous players to use creatively.

So, yes, winnowing the list down to five was tricky. But read on and you'll see how these game-changing amplifiers helped create the sounds that made us want to play guitar in the first place. We aren't discussing them in hierarchical terms of "best" or "most influential"—each is too unique and empowering for such trifling. Instead, we'll discuss the amps chronologically, based on the year each design was introduced.

VOX AC30

Photo by Dave's Guitar Shop

The sound of the Vox AC30 isn't just permanently etched in the minds of rock 'n' roll fans everywhere. Its diamond-pattern grille cloth, seen as backdrop in innumerable photos of the Beatles and countless bands from the British Invasion up to the present, is permanently etched on our retinas. It's a ubiquitous design used by such notable players as the Kinks' Dave Davies, Rory Gallagher, U2's the Edge, Peter Buck of R.E.M., and Queen's Brian May.

The AC30 got its start in the 1950s. Tom Jennings founded Jennings Organ Company, which produced the Univox—a "piano accordion" that incorporated a three-octave keyboard with a built-in amplifier. Its one-note-at-a-time sound became popular in pubs in post-World War II England. (Check out the Tornadoes' 1962 recording of "Telstar" to get an idea of what it sounded like.) But it was the up-and-coming popularity of rock 'n' roll in the latter half of the '50s that prompted Jennings to reunite with his wartime buddy Dick Denney to produce an amplifier designed specifically for guitarists.

Fender amps were available in England, but at a hefty cost. Not only did shipping make them prohibitively expensive, they also required a step-up transformer to run on the U.K.'s 220V grid. The AC30's pint-sized progenitor, the AC15, was born in 1958. Manufactured in Sussex, the "Amplifier Combination 15 Watt" was the affordable answer to Fullerton imports. It quickly became the 6-string voice of Hank Marvin, guitarist in the popular instrumental group the Shadows, as well as with popular Merseybeat group the

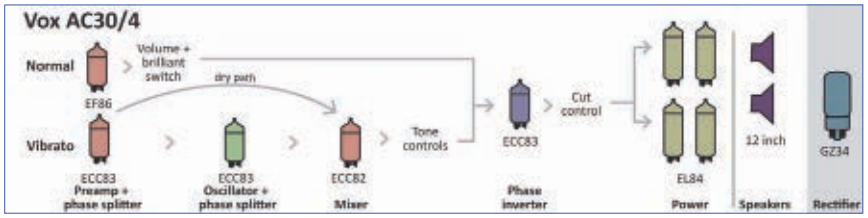
THE NEW AMERICAN LEGEND

Introducing the new J-29 Rosewood. Play one today at your Gibson dealer and experience the new American Legend.

Gibson Acoustic

www.gibson.com

The J-29 Rosewood



What about the AC34?

Vox fanatics who deep-dive into the company's history are sometimes vexed by the mention of a mysterious "AC34" design—including on an April 1960 Jennings Musical Instruments schematic. Author Jim Elyea demystifies the moniker for us: "If you say 'AC30/4' to someone, it sounds identical to 'AC34.'" In other words, there's not some ultra-rare model out there. The "AC30/4" and "AC34" are the same amp. The confusion—apparently even at JMI in 1960—arises from the failure to verbalize the slash mark in the model designation.

Big Three, Lonnie Donegan, and other guitarists—and, yes, accordionists—in the U.K. Its instantly recognizable sound—glassy, chimey, and sweetly compressed when driven—defined early British rock. The AC15's tube complement—a pair of Mullard EL84 power tubes (or "valves" in British parlance) and a high-gain EF86 pentode in the preamp—were a key difference between the Vox and Fender sound.

But the increasing popularity of rock 'n' roll soon led to bands being booked in larger venues (never mind the fact that rock drummers were also getting louder). To keep up, guitarists were looking for more volume. Enter the AC30, which doubled the AC15's power section with four EL84s producing 30 watts of class AB power.

According to Jim Elyea, author of *Vox Amplifiers: The JMI Years*, Dick Denney's original single-speaker AC30 built in 1959 featured two EL34 power tubes. In order to work in conjunction with two speakers, however, the EL34s would have required a taller cabinet than what we're accustomed to today. So four EL84s enabled use of a smaller, more manageable chassis. According to David Petersen and Dick Denney's book, *The Vox Story*, the Shadows took possession of the first three AC30s in late 1959. Interestingly, for a short time three versions of the AC30 were simultaneously on the market: the one-speaker EL34-powered AC30, the AC30/4—which had four input jacks, an EF86 preamp tube, four EL84s, and two speakers—and the AC30/6, which had six inputs, a 12AX7 in place of the EF86, four EL84s, and two speakers.

Modern-Day Alternatives

Vox AC30HW2X Handwired, $1,999 street, *voxamps.com*
Matchless DC-30, $3,800 street, *matchlessamplifiers.com*
Dr. Z Stang Ray 1x12 combo, $2,299 street, *drzamps.com*
Top Hat King Royale 2x12, $2,999 street, *tophatamps.com*
65 Amps London Pro 1x12, $1,995 street, *65amps.com*

The AC30 ON RECORD

The Beatles *Please Please Me*
Rory Gallagher *Deuce*
Queen *A Night at the Opera*
U2 *The Unforgettable Fire*
Radiohead *OK Computer*

WHO'S THE BOSS?

HD TUNING · Sweetened TUNINGS · Buzz Feiten tuning system

OVER 65 YEARS OF STROBE TUNING TECHNOLOGY PACKED INTO A SLEEK, HANDHELD TUNER MAKES THE STROBOPLUS HD™ THE "BOSS" OF ANY TUNING TASK.

1/1000TH OF A FRET ACCURATE TUNING • HUGE TUNING SCREEN • OVER 90 SWEETENED TUNING™ PRESETS
RECHARGEABLE BATTERY • PLAYBACK TONE GENERATOR • AVAILABLE METRONOME OPTION • USB PROGRAMMABILITY

/petersontuners

The Sound of Precision peterson STROBE TUNERS

www.PetersonTuners.com | USA | 708.388.3311

©2014 Peterson Tuners. The term StroboPlus HD and Sweetened Tunings are trademarks of Peterson Electro-Musical Products, Inc. Buzz Feiten Tuning System is a registered trademark of Buzz Feiten Design Co., Inc.

FENDER "Blackface" Twin Reverb

Seven years after their very first amplifiers began rolling off the line, Fender introduced the original "wide panel" tweed Twin. Its 25 watts excelled at clean, loud tones that were great for country artists and others who were playing in larger venues. The Twin joined the ranks of the Bandmaster, Champ, Princeton, Deluxe, Super, Pro, and Bassman in 1953, but it took another 10 years for the much louder, 85-watt Twin Reverb—with its sleek, "blackface" cosmetics—to emerge.

The Twin Reverb wasn't Fender's first reverb-equipped amp—that prize goes to the Vibroverb, which came out in February 1963. The Twin Reverb followed in September, and the Deluxe Reverb and Super Reverb also came out that year. Fender's reverb boom wasn't over, though: The Princeton Reverb debuted in '64, and the Pro Reverb came out in '65. For a long lineage of guitarists, however, the Twin started a love affair that's still going strong more than 50 years later.

Originally, the 2-channel, 10-tube amp's "normal" and "vibrato" channels each sent the guitar signal through both halves of a 7025 tube—a low-microphonics military version of a 12AX7. The vibrato channel uses another half of a 7025 tube for a second gain stage. A 12AT7 phase inverter sends the preamp signal to four 6L6GC tubes driving a pair of 12" speakers—usually ceramic-magnet models like a Jensen C12 or an Oxford 12T6, though alnico-magnet JBL D120Fs were available for an upcharge. The reverb section uses both halves of a 12AT7 for the driver, and half of a 7025 for the return (sharing that tube with the vibrato channel's second gain stage). The vibrato circuit uses both halves of a 12AX7. The rectifier is a solid-state unit.

Fender produced Twin Reverbs through 1986, though they changed considerably along the way, most notably with the 1968 switch to "silverface" cosmetics. According to Jeff Bober,

Photo by Dave's Guitar Shop

YOU DON'T HAVE TO BE OLD TO SOUND VINTAGE.

NEW

CV-75

Over 10 years in development, we've captured the epitome of British tone. Complete tonal balance – grunt and punch in the lows, warm/tailored mids, and clear, open/airy highs.

NEW

LEGEND EM-12

High power ultra-clean tone with big, round, punchy lows and warm, smooth mids and highs. More neutral tone so you can hear more of your amp and guitar.

NEW

GA-SC64

True vintage voicing by amp guru George Alessandro. Well-balanced from top to bottom, its warm, dynamic character lends itself to vintage amps as well as modern gain and distortion.

Three new models with distinctive vintage tone.

Check out more new models and sound clips at www.Eminence.com.

EMINENCE®

Follow us:

Proudly designed and assembled in the USA.

Premier Guitar's Ask Amp Man columnist and owner of EAST Amplification, the first year's worth of silverface Twins' bias, phase-inverter, and output-stage circuits differed from their predecessors, resulting in a semi-cathode-biased design that reduced overall volume and had a tendency to compress much more easily. The next year saw a return to the louder fixed-bias design, though the other changes remained—and more would follow (including the curious 1972 introduction of a master volume).

In 1982, Fender attempted to modernize and diversify the Twin Reverb sound with the Paul Rivera-designed Twin Reverb II, which shunned the tremolo circuit and adopted a distortion control. In 1992, the Twin Reverb's venerated history led to the '65 Twin Reverb Reissue line, which is based on early blackface models and continues to be a favorite for a wide variety of players to this day.

The classic Twin sound is the powerful, bell-like tone of early blackface models. Twins have been used by the Beatles, Mike Bloomfield, Jerry Garcia (his first amp was a '63 Twin Reverb that he used for most of his career), Keith Richards, Don Rich, Steve Howe, B.B. King, James Burton, Mike Jones of the Sex Pistols, Eric Johnson, and even Kurt Cobain. In short, Twins have been and are everywhere. They're clean at virtually any volume, making them a nice jazz amp or an impeccable blank canvas for pedal experimentation—which is why pedal manufacturers and reviewers often use them to audition pedals.

Modern-Day Alternatives

Fender '65 Twin Reverb Reissue, $1,449 street, *fender.com*
Music Man 212 HD 130, TBD, *music-man.com*
Roland JC-120 Jazz Chorus, $1,199 street, *rolandus.com*
Tone King Galaxy head, $2,595 street, *toneking.com*
Victoria Golden Melody, $2,970 street, *victoriaamp.com*

The Twin Reverb *ON RECORD*

The Beatles *Abbey Road*
Mike Bloomfield *Super Session*
Buck Owens and His Buckaroos *Carnegie Hall Concert*
Nirvana *In Utero*

EarthQuaker Devices

Otherworldly Reverberation

Mega Ultimate Maximum Dual Channel Overdrive (with Boost)

Preamp Booster

MARSHALL 1959 Super Lead

London's Seventy Six Uxbridge Road must have been an interesting place in 1962: Jim Marshall, a proficient drummer, had just opened a drum shop where he taught future Hendrix drummer Mitch Mitchell, among others. Customers would often bring along their guitar- and bass-playing bandmates, and eventually the shop became a hangout for rockers like Ritchie Blackmore and Pete Townshend. Conversation often turned to gear, and Marshall—who'd already been making speaker cabinets for bass players—soon learned that the 1957 Fender Bassman that so many players coveted had been discontinued in favor of the 6G6 blonde version. And when he heard that even the coveted '57 Fenders weren't giving rockers what they needed, he decided he'd solve the problem with his own design.

It's worth noting that, though there probably wouldn't have been any Marshall amps were it not for the untimely demise of the 5F6A Bassman, it's equally likely the Bassman wouldn't have existed without the 1951 *RCA Receiving Tube Manual*'s detailed description of a "High Power Audio Amp." Each led directly to the other.

In 1962, the Marshall team built their first amp, the JTM45, with the goal of providing guitarists with a more aggressive sound. It wasn't an exact Bassman clone, just as Leo Fender's Bassman wasn't an exact clone of the RCA amp—but in both cases the deviations from the circuit that inspired them were minor. While Marshall followed the Bassman circuit almost identically, they were limited to components available in England. They first used 5881 (aka 6L6) power tubes, just like the Bassman, but soon changed to KT66s. The JTM45 also used a 12AX7 as the first preamp tube (as opposed to the Bassman's 12AY7), which resulted in very different gain and loading characteristics. Marshall's first amp also used an extra brightness capacitor, as well as a feedback circuit taken from the 16 Ω output (rather than the Bassman's 2 Ω output).

The combination of the JTM45 with Marshall's 4x12 speaker cabinets hooked the Who's John Entwistle and Pete Townshend—the latter of whom also contributed design ideas to the Marshall team, which included Dudley Craven and Ken Bran. Alas, by 1965 JTM45 stacks weren't cutting it for arena acts. The Who switched to 100-watt Vox amps for a time, but purportedly

In all, there were no fewer than 15 iterations of the Super Lead between 1965 and 1969—including the mid-'69 switch from Plexiglas to metal control panels.

The World's First Affordable Self-Tuning Acoustic/Electric Guitar

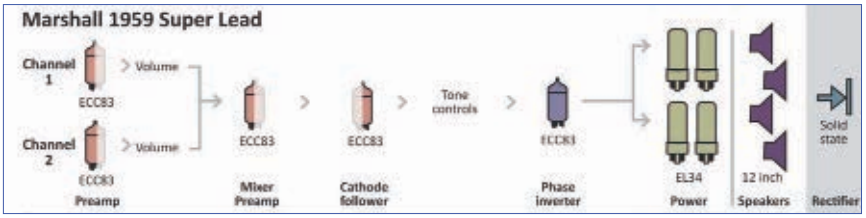
"The FT-350SCE with Min-ETune is fast, and accurate. And it sounds great too. I use it live and love it."
Crystal Bowersox

- Featuring the fast, easy, and dependable **Min-ETune™ system**
  - Tunes all six strings simultaneously in seconds
  - Accuracy within 2 cents
  - 12 preset and 6 user tunings
  - Up to 100 tunings on a single charge
  - Includes rechargeable battery and charger

© 2014 The Epiphone Company. All Rights Reserved. Photo: Gina Oh

www.crystalbowersox.com
www.epiphone.com/Min-ETune

Epiphone®
performance is our passion
A Division of Gibson Brands



found them unreliable. Townshend then challenged Marshall to double the power of the JTM45.

Not every version of Marshall's 100-watt amps was called the 1959 Super Lead. The 1959 name showed up in late 1967, stemming from its item number in a catalog. Regardless, continuing development on the 100-watt head that would eventually be known as the 1959, the company tried four 6V6 power tubes, followed by four 6L6s, then four KT66s. Four big tubes require a lot of current, and the existing power transformers weren't up to it. This resulted in a sag-induced compression as the power transformer struggled to keep up. As the team experimented with filter-capacitor values in the power section, they noticed tonal variations. There were also various output-transformer approaches as the quest to refine the circuit continued. Early in 1967, Marshall abandoned KT66s for EL34 power tubes and yet another output transformer. In all, there were no fewer than 15 iterations of the Super Lead between 1965 and 1969—including the mid-'69 switch from Plexiglas to metal control panels.

This rather cursory explanation of the Super Lead's evolution helps explain vintage-amp junkies' perennial quest for "a really good plexi." Compounding the mysteries of the model's various iterations is the fact that, in those days, electrical component values could vary widely due to less exacting manufacturing methods than are available today. So while any two amps off the line might contain parts labeled with the same values, the cumulative effect of loose component tolerances meant each amp could sound markedly different.

But that didn't stop the 1959 from going down in history as the 100-watt of choice for everyone from Jimi Hendrix to Eric Clapton, Edward Van Halen, Warren Haynes, Eric Johnson, Yngwie Malmsteen, and many, many others.

Modern-Day Alternatives

Marshall 1959SLP Super Lead, $2,499 street, *marshallamps.com*
Bogner Helios, $2,799 street, *bogneramplification.com*
Friedman Brown Eye, $3,699 street, *friedmanamplification.com*
Suhr SL-68, $2,299 street, *suhr.com*
3rd Power HD100, $2,499 street, *3rdpower.com*

The Super Lead *ON RECORD*

Cream *Disraeli Gears*
Jimi Hendrix *Are You Experienced*
AC/DC *High Voltage*
The Ramones *Rocket to Russia*
Van Halen *Van Halen*

CHICAGO MUSIC EXCHANGE

VICTORIA

THE CHICAGO-LUX

VICTORIA 14W TWEED COMBO AMP

The greatest small wattage amp ever made, reborn.

Victoria Amplifier and Chicago Music Exchange joined forces to create this incredible Limited Edition amplifier. The Victoria Chicago-Lux is an exact recreation of the classic 1959 "5F11" tweed Vibrolux style amp. Made with the finest period-correct components, the Chicago-Lux is a virtual trip back in time to one of the greatest small wattage amps ever made.

BUY NOW! Available exclusively at Chicago Music Exchange.

888-686-7872 | 3316 N. Lincoln Avenue, Chicago, IL 60657 | chicagomusicexchange.com

Watch the demo video at youtube.com/ChicagoMusicExchange

YouTube

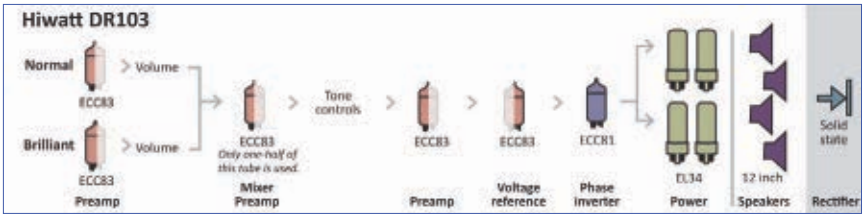
HIWATT DR103

"Made redundant" is a British term for losing your job. And in 1966, that's what happened to Dave Reeves while working at the revered Mullard tube factory in Surrey, England. He rebounded quickly though, founding the Hylight company and diving into designing and building high-powered amps for Sound City, the famous London music shop where Buddy Rich, the Beatles, Jeff Beck, Hendrix, and others often bought gear. Hiwatt expert Mark Huss, whose website hiwatt.org provides a detailed history of the company, says the now-legendary amp name first showed up on an amp built by Reeves as far back as 1964—although it was possibly a one-off project. In 1968, following his Sound City amp-building stint, Reeves started building a line of high-powered amps under the aptly named Hiwatt brand.

Although some might say Hiwatt followed on the coattails of Marshall, Reeves designed quite a different amp. He also benefited from the fallout of a money-related disagreement between the Who's manager and Terry Marshall (Jim's son), after which Pete Townshend turned to other amp providers. He first tried Sound City amps, then—naturally—Hiwatt. Townshend's legendarily loud quartet was always looking for more volume, and he found happiness in Reeves' 100-watt Custom 100 DR103. Armed with four Mullard EL34 power tubes, it easily exceeded 100 watts. In contrast with Marshall's high-powered offerings, the DR103 had less breakup when turned up loud. Actually, it had *no* real breakup until cranked to ear-shattering levels.

The DR103 circuit was identical to Hiwatt's 50-watt Custom 50 DR504 amp, but it doubled the number of EL34s for twice the power. According to Kee Mayer, engineer and builder at the current Hiwatt manufacturing facility in Doncaster, England, Reeves designated the original DR103 circuit with the letters "AP" because pulling two EL34s resulted in a 50-watt amp that's more "all

Framus®
TRADEMARK
SINCE 1946
IDOLMAKER
STEVE SALAS
SIGNATURE
The first Carbon-Neutral Company in the Music Industry
Family Owned - Solar Powered - Sustainably Manufactured in a Green Environment
www.usmusiccorp.com www.usmusiccorp.com
sales.support@usmusiccorp.com www.facebook.com/warwickframus
ClimatePartner°
climate neutral
Framus
TRADEMARK
FSC
EMAS
DIN 14001
DIN 18001
ISO 50001



purpose." Fully stocked, the solid-state-rectified DR103 has eight tubes—three ECC83s (12AX7s), one ECC81 (12AT7) phase inverter, and four EL34s. (That said, one of the DR103's ECC83s is only half used.)

In 1970, Hiwatts formed the backdrop for Townshend's *Live at Leeds* acrobatics, paving the way for them to become go-to amps for power- and volume-hungry players. By 1971, demand had increased so much that Reeves needed help. In the phone book he found a listing for Harry Joyce Electronics, whose proprietor had military contracts requiring high standards of quality and durability. To maintain those standards, Joyce limited his chassis-wiring workload to 40 per month.

Between the 14-ply, tongue-and-groove Baltic birch cabinets and Joyce's military-spec chassis, Hiwatt durability went above and beyond typical standards. Partridge Transformers provided custom models, and Fane produced speakers with cast-metal frames. Over-the-top quality, durability, and attention to detail became synonymous with the brand—not to mention tones rich in edgy, third- and fifth-order harmonics. Playing through a cranked vintage Hiwatt stack is not for the faint of heart: Burly sounds lunge from the cabs almost instantaneously, revealing every detail and nuance of pick attack and fretwork. The classic Hiwatt tone is an exquisite blend of muscle and musicality.

While there's no longer a connection between Hiwatt and the Reeves family—nor between the family and the Hiwatt-inspired designs from U.S.-based Reeves Amplification—current owners of the brand still have a lot of respect for the standards that Reeves and Joyce set. Current-production DR103s still feature handwired, turret-board construction.

Modern-Day Alternatives

Hiwatt Custom 100 DR103 (above), $2,999 street, *hiwatt.com*
Reeves Custom 100, $2,399 street, *reevesamps.com*
Jaguar HC50 combo, $2,029 street, *jaguaramplification.com*
Hi-Tone HT100 DR, $1,939 street, *hi-tone-amps.com*
Ceriatone Hey What?! 103, $1,140 street, *ceriatone.com*

The DR103 *ON RECORD*

The Who *Live at Leeds*
Jethro Tull *Aqualung*
Pink Floyd *The Wall*
Led Zeppelin *Led Zeppelin DVD* (1970 Royal Albert Hall gig)

KEEPING THE
PASSION ALIVE
FOR 50 YEARS.
CELEBRATING GUITAR CENTER'S 50TH ANNIVERSARY.
CONGRATULATIONS FROM SHURE.
Guitar Center
www.shure.com
® 2014 Shure Incorporated
SHURE
LEGENDARY
PERFORMANCE™

MESA/BOOGIE Dual Rectifier

The first of Randall Smith's famous line of hot-rodded amps started appearing with the Mesa/Boogie moniker around 1970. However, early amps known as "Princeton Boogies"—Fenders that Smith heavily modified—date as far back as 1967. Working in what he called "the Dog House" in Lagunitas, California, Smith started experimenting to see if he could cram a Bassman-like amp into a Princeton-size cabinet.

It worked. The 100-watt, 6L6-powered amps soon garnered attention from such high-profile players as Carlos Santana and Keith Richards, almost immediately establishing Mesa/Boogie as a serious contender in the amp market.

But while Smith's team released many notable designs thereafter, Mesa's most influential amp—the Dual Rectifier—came roughly 20 years later, in 1991. Whereas previous Boogies had much in common with Fender circuits, the Dual Rec's lineage has more British-like origins. R&D guru Doug West made an urgent phone call to Smith from his hotel room one evening late in the '80s. He'd noticed many guitarists at the time were leaning towards specially modified Marshalls, and he felt it was time for Boogie to respond.

After lots and lots of listening, the company began work on a design with cascading gain sections for more brutal tones. They used a smaller chassis for the prototype (p.56), crowding it with tubes, rectifiers, and other components in search of the right sound. Once they'd perfected it, they found transferring the same sound to a printed-circuit-board version was just as challenging. But by late 1990 they'd figured it out.

As its name suggests, one of the keys to the new high-gain Boogie's sound was its use of two rectifiers. Wall voltage is AC (alternating current), meaning it exits the wall socket as a sine wave. But amps need DC (direct current)—a continuous voltage. All tube amps have rectifiers, either a tube (sometimes two) or solid-state diodes. The latter tend to result in higher voltages and, therefore, more clean headroom at higher volumes. The

As its name suggests, one of the keys to the new high-gain Boogie's sound was its use of two rectifiers.

Introducing D'Addario NYXL:
the next generation of electric strings.

Engineered from reformulated nickel-plated
steel for more punch, crunch, and bite.

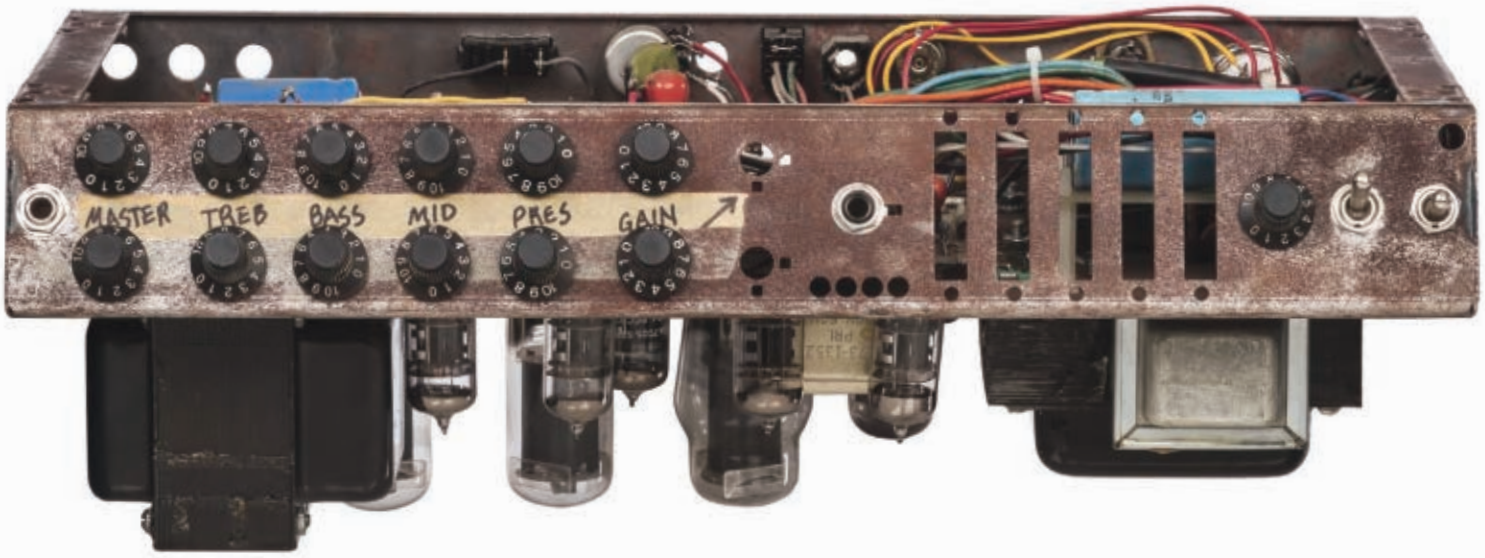
NYXLs reach pitch faster and stay in tune
better than any other string.

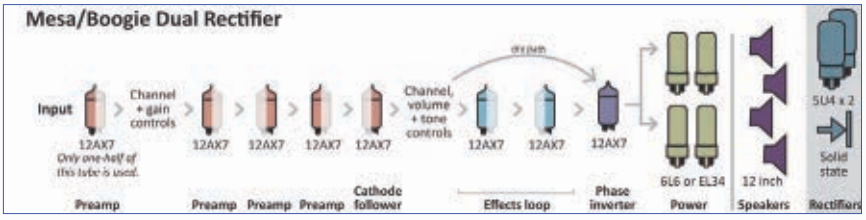
You're about to be heard
more clearly than ever before.

nyxlstory.com | #nyxl

D'Addario

NY
XL





lower voltages of tube rectifiers tend to result in earlier breakup and a nice, bluesy distortion. At high volume, tube-rectified circuits also tend to exhibit more "sag"—a pleasing, naturally compressed sound often associated with vintage amps. One of the most intriguing aspects of the new Dual Rectifier was that you didn't have to choose either one or the other—you could switch between tube or solid-state rectos with the flip of a switch on the back of the amp.

Another Dual Rec innovation was its bias switch, which let users choose which high-gain octal tubes—6L6 or EL34—they preferred. It also featured two footswitchable channels—a handy feature many of us take for granted today, but that was pretty mind-blowing at the time. The amp's 11 tubes include two 5U4 rectifiers, five 12AX7s, and four 6L6s or EL34s. Why two 5U4s? Just one can't handle all the current.

When all's said and done, the Dual Rec—and its many Boogie spinoffs—is most prized for its ability to instantaneously switch from crushing distortion and infinitely sustaining leads to brawny, super-clean sounds. Early adopters included a who's-who of metal players, including Metallica's James Hetfield and Kirk Hammett, Dream Theater's John Petrucci, as well as Tim Mahoney of 311, and many, many others.

Modern-Day Alternatives

Mesa/Boogie Dual Rectifier, $1,949 street, *mesaboogie.com*
Diezel Lil' Fokker, $2,499 street, *diezelamplification.com*
Blackstar HT Metal 100, $1,049 street, *blackstaramps.com*
Peavey 6505+, $1,299 street, *peavey.com*
Fryette Pittbull Hundred/CLX, $2,799 street, *fryette.com*

The Dual Rec *ON RECORD*

Metallica *Metallica*
Dream Theater *Awake*
Soundgarden *Superunknown*
Helmet *Meantime*
King's X *Dogman*

Bigsby®

Adding Real Vibrato to the World's Best Guitars since 1946.

When Paul Bigsby decided to make a better Vibrato in 1946, he didn't know that he was introducing an iconic symbol of cool - he just wanted to fix the problems of vibrato bars that existed at that time. Since then, Bigsby has been adding it's unique brand of hipness, vibe, and flat out cool to the ***World's Best Guitars.***

Isn't it time to add some "Vibe" to YOURS?

www.bigsby.com

Gretsch® and Bigsby® are registered trademarks of Fred Gretsch Enterprises, Ltd.
Bigsby, P.O. Box 2468, Savannah, GA 31402

Rickenbacker

1964 Rickenbacker 325

BY DAVE ROGERS, LAUN BRAITHWAITE, AND TIM MULLALLY

F.C. Hall, owner of Radio & Television Equipment Co. (Radio-Tel), purchased the Electro String Company from Adolph Rickenbacker in 1953. Hall overhauled the business and began focusing on standard electric guitars rather than the steel guitars the company pioneered. By 1958 he had developed a new line of thin hollowbody electric guitars known as the Capri series (named after the Hall family's cat). German-born guitar maker Roger Rossmeisl (hired in 1954) was responsible for the unique design of these instruments, a distinctive look seen in most Rickenbackers to this day. The Capri series consisted of Models 310-375. Models ending in zero had no vibrato, while those ending in the number five had vibrato.

The first Capri model announced was the three-quarter-size 325. This petite, lightweight guitar didn't achieve its intended popularity until it was seen in the hands of Beatle John Lennon. Lennon acquired his natural-finish 1958 325 while the Beatles were in Hamburg, Germany.

The Beatles' growing popularity caused a sudden demand for Rickenbacker guitars, initially in England. To meet this need, the British company Rose Morris became Rickenbacker distributors. The export version of the 325 was known in the Rose Morris catalog as the Model 1996. Like most other export models, it had a Fireglo finish and a traditional f-hole. Lennon used one of these as a backup to his more famous solid-top Jetglo (black) 1964 325.

The other rock-'n'-roll legend known for using a 325 is John Fogerty of Creedence Clearwater Revival. His Fireglo 325 can be heard playing searing lead on CCR's covers of "Suzie Q" and "I Put a Spell on You." The hollow body of the Rickenbacker combined with Fogerty's Kustom amp produced musical, controlled feedback on both the recorded and live versions of these songs.

The 1964 325 pictured has the features most often associated with the export Rose Morris Model 1996: 3/4-scale, a one-piece maple neck with an unbound, 21-fret, lacquer-finished rosewood fretboard, three "toaster" single-coil pickups, a hollow maple body, f-hole, and Ac'cent vibrato tailpiece.

The 1964 list price was $389.50. The current value for one in excellent all-original condition is $10,000. Late-'60s Kustom 2x12 cabinets provide the backdrop for this 325.

Sources for this article include by *Rickenbacker* by Richard R. Smith and *The Rickenbacker Book: A Complete History of Rickenbacker Guitars* by Tony Bacon and Paul Day.

DAVE'S GUITAR SHOP

Dave Rogers' collection is tended by Laun Braithwaite and Tim Mullally and is on display at:
Dave's Guitar Shop
1227 Third Street South
La Crosse, WI 54601
davesguitar.com
Photos by Mullally and text by Braithwaite.

Opposite page: German luthier Roger Rossmeisl designed the Capri series, introducing a look still found on today's Rickenbackers.

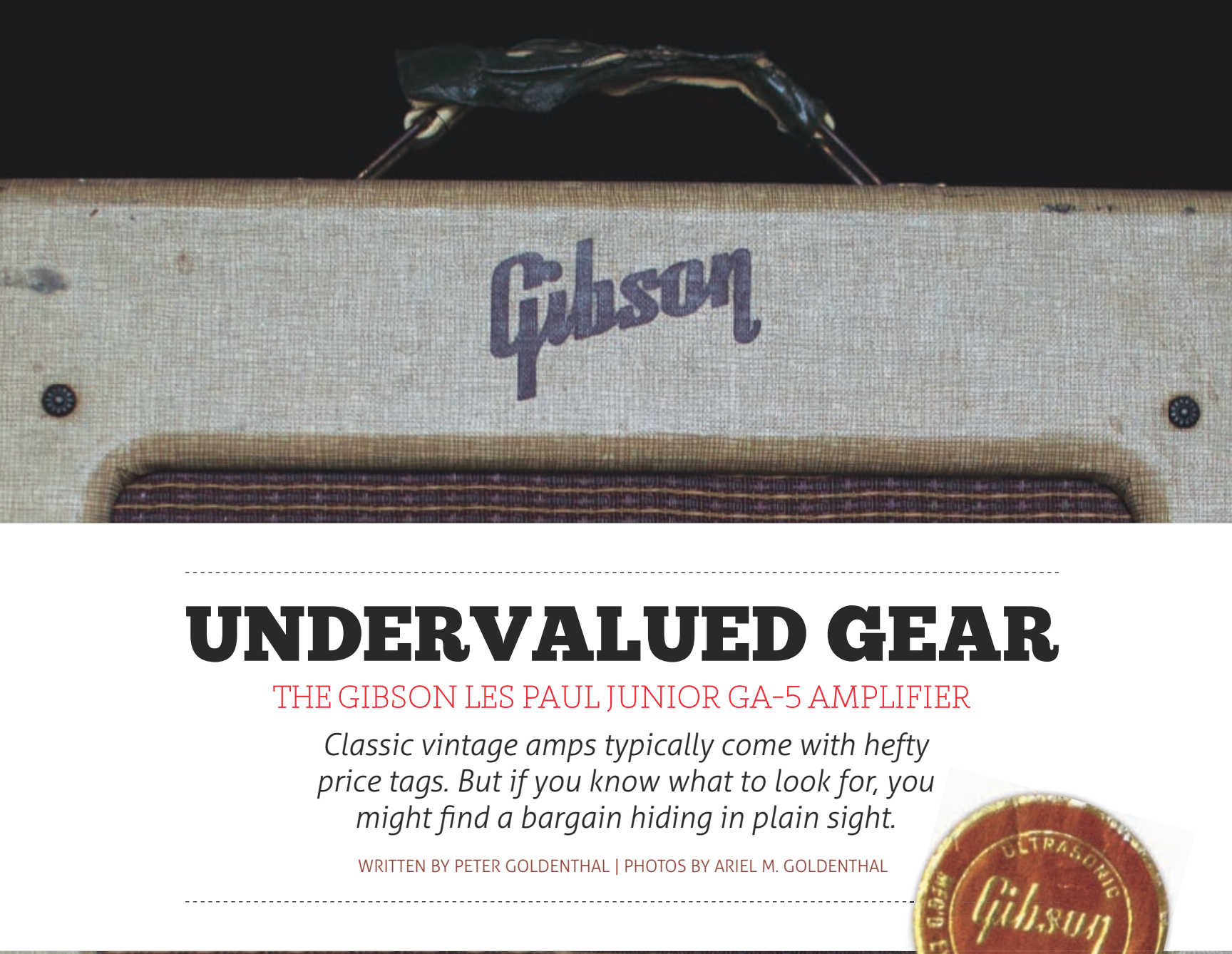
Left: Signature details include three "toaster" single-coils, a classic f-hole, and Rickenbacker's Ac'cent vibrato.

pedaltrain

@PEDALTRAIN | PEDALTRAIN.COM

USER PHOTO CREDITS :
left to right / top to bottom

@caseymoore_ @Spivakovski @filipedelbel @matthewhoopes @je_sj77
@iamgabrielvalenz @mccartney007 @reallybenwalker @joshhunt_

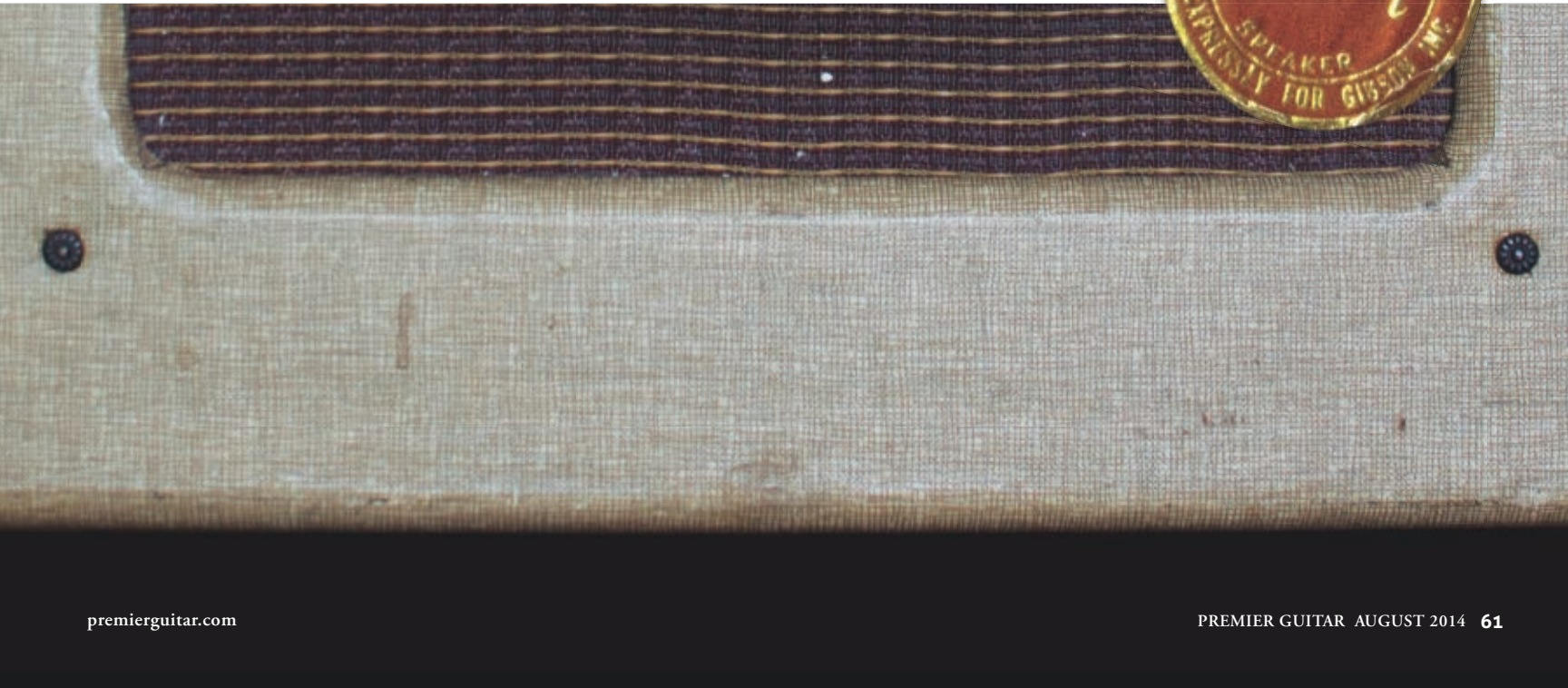


UNDERVALUED GEAR

THE GIBSON LES PAUL JUNIOR GA-5 AMPLIFIER

Classic vintage amps typically come with hefty price tags. But if you know what to look for, you might find a bargain hiding in plain sight.

WRITTEN BY PETER GOLDENTHAL | PHOTOS BY ARIEL M. GOLDENTHAL



This road-worn 1956 Gibson amp looks a lot like a tweed Champ but was tagged with a more manageable price. Why aren't these amps better known?

This is a tale, not of two cities, but of two companies and of two amplifiers that, if it weren't for their logos, might have been twins. Just about everybody who's ever picked up a Strat or Tele is familiar with the tweed Fender Champ—the little practice amp that could, the one famous for being the amp that Clapton used to record "Layla."

The tweed Champ is great for practicing at home, for recording in the studio, or for gigging when played through one of the high-quality PAs found in so many clubs, and it has that vintage-tweed cool factor. For the working musician, however, one problem presents itself. These amps are collectible, and collectability means higher prices. I had been coveting one of these little amps, but the $1,200 price tag was a bit daunting. When I was in Danny's Guitar Shop in Narberth, Pennsylvania, and spotted a road-worn Gibson amp that looked a lot like a tweed Champ but was tagged with a more manageable price, I couldn't resist. It turned out to be so great that I became curious: Why aren't these amps better known? And why aren't more people buying and using them?

Nate Westgor of Willie's American Guitars in Saint Paul, Minnesota, knows as much as anybody about vintage gear, and although the store's website says, "Cool used guitars is just about all we do," they also do quite a bit with cool used amps. Nate believes the answer to my question about why the Les Paul Junior amp isn't better known is as much about history and perception as it is about tubes and circuit design. Actually, it may be *more* about history and perception than it is about tubes and circuits.

"When Fender was concentrating on making roadworthy amps for touring country musicians," says Westgor, "Gibson's ethos was 'distortion-free tone.' Fender was listening to traveling musicians, Gibson was listening to

LOOKING TO SELL OR TRADE IN YOUR VINTAGE GEAR?

WHETHER IT'S A SINGLE PIECE OR A LARGE COLLECTION, GUITAR CENTER IS THE FIRST AND BEST PLACE TO GO.

"I want to again thank you for all the time you invested in helping me liquidate my brother's guitar collection! I look forward to working with you again regarding the sale of the amp collection!"

Sincerely, C from SW Michigan

WE PAY CASH FOR VINTAGE
*Some Restrictions Apply

SAME-DAY NO-HASSLE PAYMENT

EXPERIENCE BUYING, SELLING **50 YEARS** AND TRADING VINTAGE GEAR

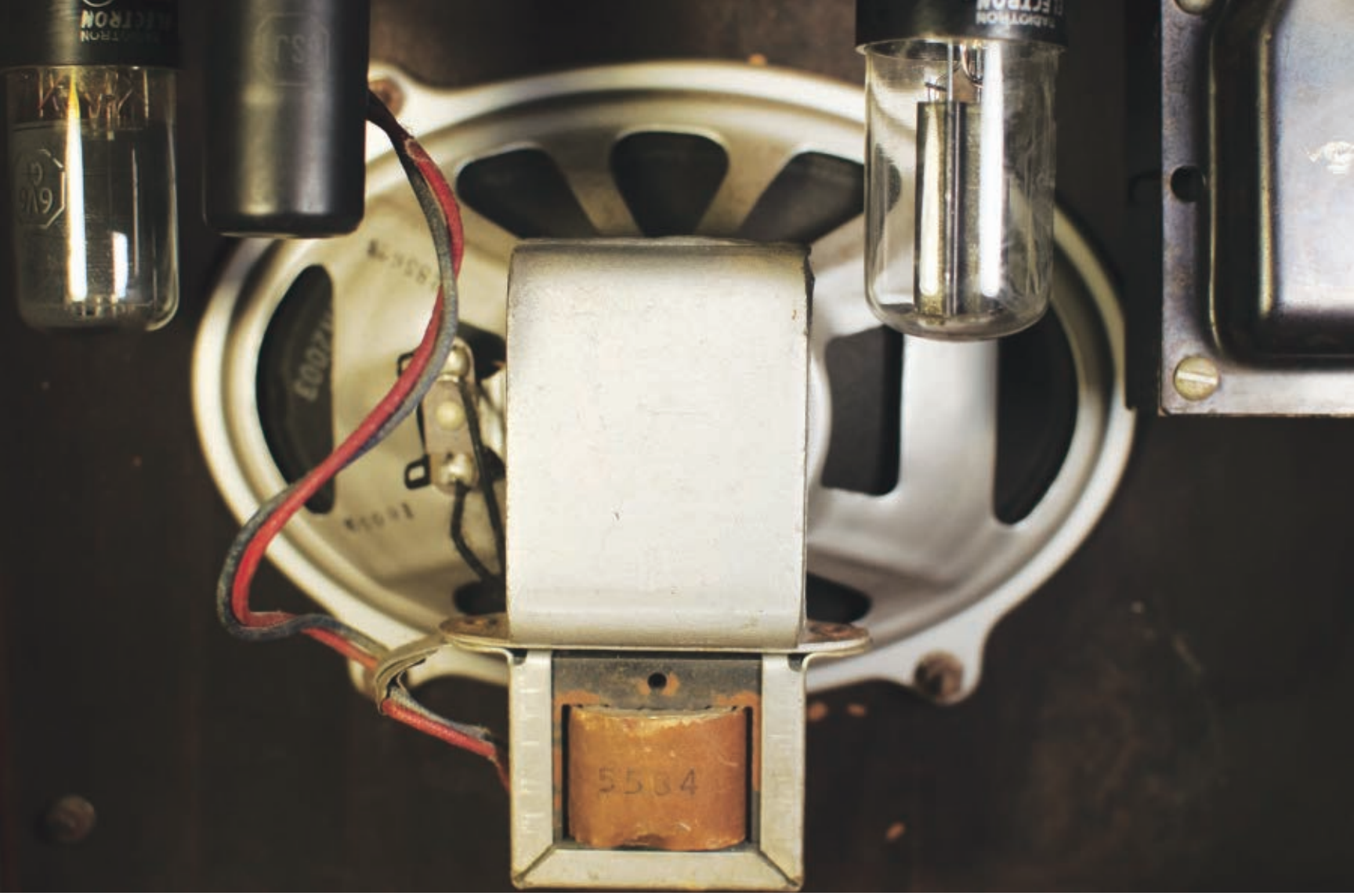
Guitar Center **VINTAGE**

VINTAGEBUYS@GUITARCENTER.COM

855-4VINTAGE

VINTAGEGUITARS.NET

*Up to $500 per person paid in cash and over $500 per person paid by check. Local ordinance prohibits our New Orleans and Baton Rouge stores from paying cash.**10% off a single-item purchase (up to a $500 discount) with qualifying trade-in on the same transaction. Excludes Used and Vintage gear.



The Gibson GA-5 Les Paul Junior has three tubes: a 6SJ7, a 6V6, and a 5Y3. It also has a power transformer, an output transformer, a power switch, two input jacks, a volume control, seven capacitors, and eight resistors.

nobody. Gibson even thought of the 1952 Les Paul solidbody guitar as a passing fad. The first ones didn't even have serial numbers."

I asked Stephen Johnson, the best guitar tech I know of in the Philadelphia area, to direct me to the tube amp guy he trusts to work on his gear. His answer: Jim Walton—the tech guy's tech guy. "Gibson never understood," says Walton, "why someone would buy a beautiful Gibson guitar and then plug it into a Fender amp, and that prejudice has lasted a long time at Gibson. From a repairman's perspective, there were eras, especially the late '50s through 1964, when Gibson amps were great. That was their golden era."

Leo Fender's background was in radio repair, and he was quite naturally excited about and involved with electronics from the start. Gibson was focusing on

"When Fender was concentrating on making roadworthy amps for touring country musicians, Gibson's ethos was 'distortion-free tone.'" —Nate Westgor

building archtop guitars, largely for big band and jazz musicians.

"Fender was building solidbody guitars and rugged amps," Westgor explains, "originally for touring country musicians, and later for rock 'n' rollers, but Gibson was slow to put the necessary time into designing and building amps. Gibson's other problem, from a marketing perspective, was that they kept changing their amps. Some were great but others weren't great at all. The Fender Champ has always been around, so if you fast-forward 30 years or so, you can always tell your brother-in-law to buy a Champ and know it will be great. But buying advice about a Gibson is much more complicated—you have to specify the year or model, or sometimes both. Gibson's history is not rock solid. Fender always made a Deluxe, and they always made a Champ, and you can buy any older Champ or Deluxe and know that it will be great. With Gibson, you have to qualify your advice. Fender took command of the

Creamback

Vintage tone for the 21st Century

Developed almost 50 years ago, the Celestion Greenback remains an essential ingredient in the blues-rock guitar sound that burst out of the late '60s. Now comes the Creamback – a contemporary take on the Greenback recipe – all that unmistakable vintage G12M tone and the higher power handling necessary for a 21st Century stage.

Find out more

www.celestion.com

CELESTION

PARTS LIST

6V6 6SJ7 5Y3GT
Tube locations

When only one instrument is used plug into #1 input jack.

This amplifier designed for 105-125 volt, 50-60 cycle current. Damage will result if connected to improper power source.

Use the above schematic to facilitate service by a reliable radio man.

Do not use higher rating fuse than one ampere, type 3 A.G.

This amplifier was carefully checked and in good playing condition when shipped. If damaged when received call transportation company immediately and place claim.

amp market right off the bat, so older Fender amps are prized, but older Gibson amps are not. It's analogous to the way that nobody looks for an older Fender acoustic."

Players buy guitars looking for feel, for tone, for inspiration, and for just a little bit of magic. Sometimes that magic is in the form of the mojo that resides in a great pawnshop find. And sometimes the magic is in its resemblance to a guitar hero's chosen instrument. That's just as true whether it's a vintage Martin flattop like the one Stephen Stills plays, a Jeff Beck or Eric Clapton signature model Strat, or a Gibson archtop. Musicians looking to buy a great old jazz guitar immediately think about the gear and tone of their guitar heroes: Charlie Christian's ES-150, Wes Montgomery's L-5, or the ES-175s favored by Jim Hall and Joe Pass. They all played Gibson archtops, the classic jazz box.

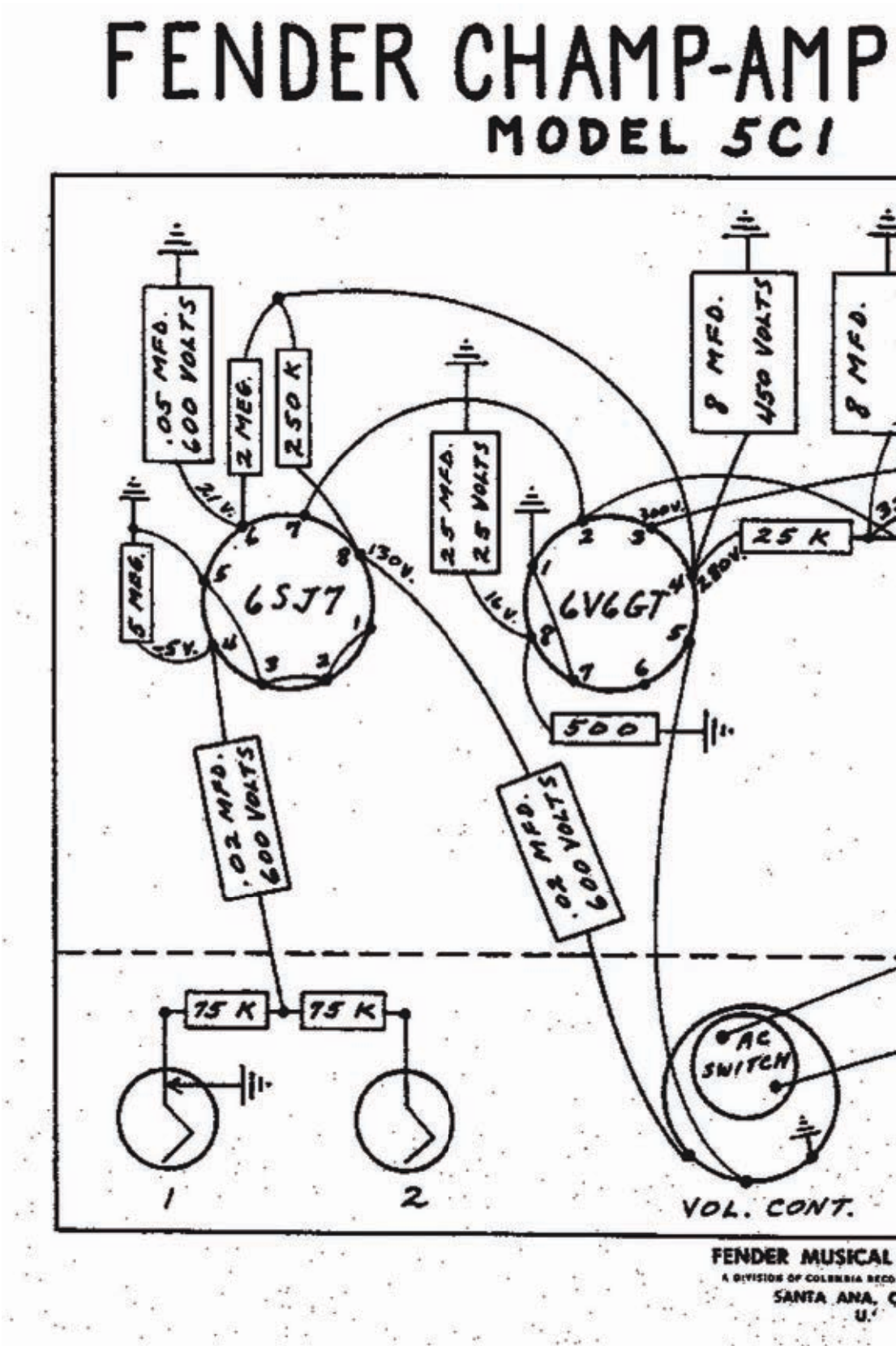
But what amps did those jazz guitar heroes use? Gibsons? Not usually. For the most part, they used Fender amps, most often the Twin Reverb. The result is that while Gibson archtops are valued by players and collectors alike, Gibson amps aren't. And that's just as true of the low-power amps.

"The GA-5 is a bargain because it lacks the public association of the tweed Champ with Clapton and 'Layla.'" —Jim Walton

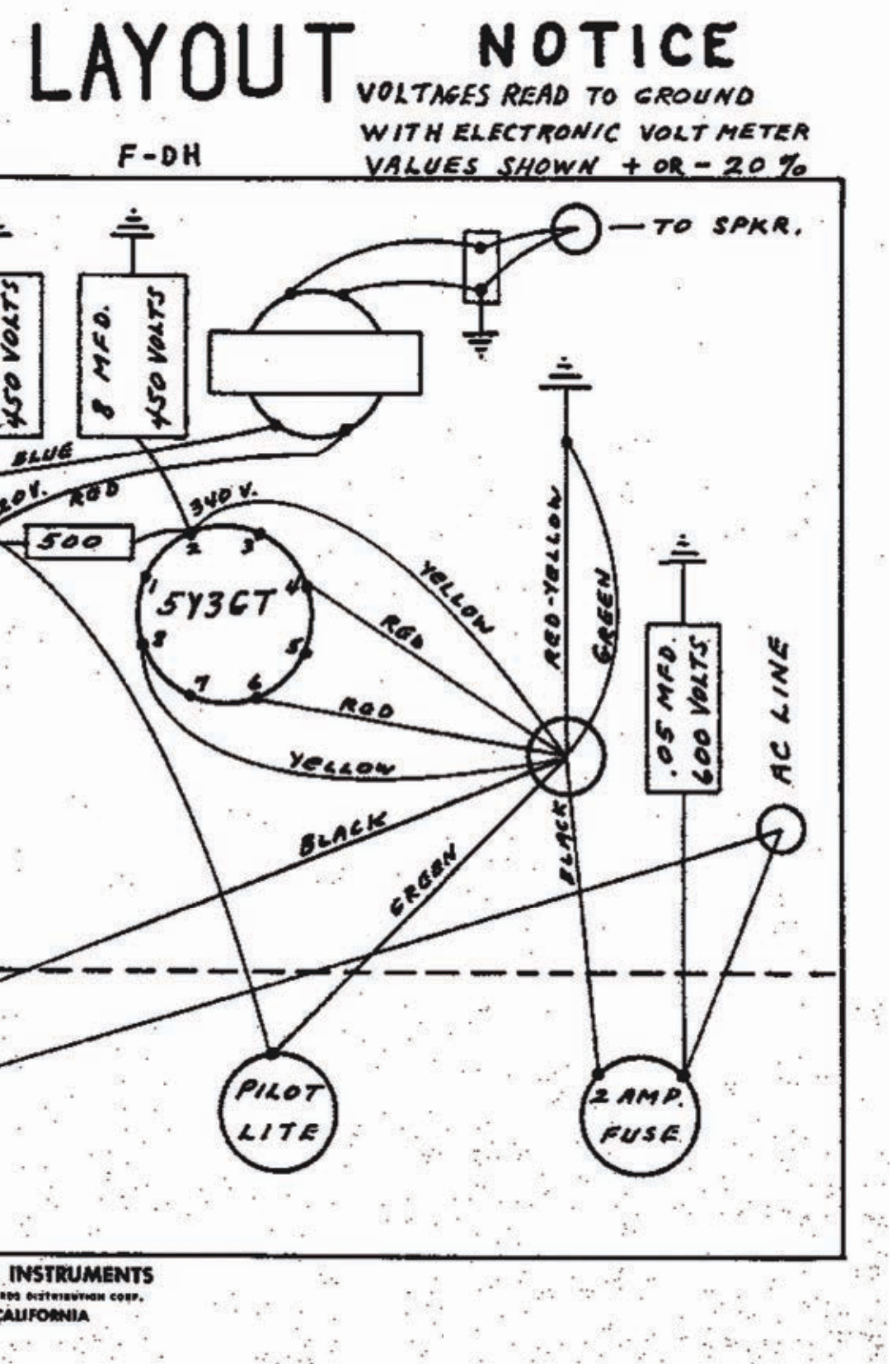
Just as guitars become icons because of their association with great performances, so too do amps. That's where the difference in perceived values between Gibson and Fender starts. And it's where Clapton and "Layla" figure in. If you Google "recordings small amps," one of the first pages to show up will be "10 Huge Sounds Recorded on Small Amps - Gibson." Click, and you'll be taken to a gibson.com page with that title where you can read about amps used on Clapton's "Layla," Joe Walsh's "Rocky Mountain Way," Aerosmith's *Honkin' on Bobo*, Billy Gibbons' "La Grange," and Jeff Beck's "Cause We've Ended as Lovers." They are all Fender Champs. And yes, you read correctly, all this information is on gibson.com.

It might be tempting to conclude that this is proof that Fender Champs are great amps and Gibsons aren't. It might be tempting to go further and conclude that only Fender Champs of whatever iteration can produce a compelling, warm, and textured sound because *Continued on p. 70*

Opposite page: The original schematic to this Gibson GA-5 Les Paul Junior amp shows virtually the same circuit as a tweed Fender Champ FC-1.



A Fender Champ FC-1 schematic.


LAYOUT
NOTICE
VOLTAGES READ TO GROUND
WITH ELECTRONIC VOLT METER
VALUES SHOWN + OR - 20 %
F-DH
TO SPKR.
8 MFD.
450 VOLTS
BLUE
340 V.
RED
500
5Y3GT
YELLOW
RED
RED-YELLOW
GREEN
.05 MFD.
600 VOLTS
AC LINE
YELLOW
BLACK
GREEN
BLACK
PILOT
LITE
2 AMP.
FUSE
INSTRUMENTS
CALIFORNIA

NAIL
HEADS
Model
MG17NH1
You
Tube
LEVY'S
www.levysleathers.com
Your guitar is worth it.

the Gibson sound is too clean. But—and this is where it gets interesting—these amps are incredibly similar from an electronics perspective. My 1956 Gibson GA-5 Les Paul Junior has three tubes: a 6SJ7, a 6V6, and a 5Y3 and not much else: a power transformer, an output transformer, a power switch, two input jacks, a volume control, seven capacitors, eight resistors—that's it. A tweed Fender Champ FC-1 has three tubes: a 6SJ7, a 6V6, and a 5Y3, a power transformer, an output transformer, a power switch, two input jacks, a volume control, seven capacitors, and eight resistors. As far as I can tell (and admittedly, I'm no electrical engineer), they are the same amplifier!

What about that "clean" thing? First, a quick tube-amp review: When guitarists refer to a clean tone, they generally mean a tone free from obvious distortion. But, as Curtis Craig, a professor at Penn State and a sound media designer and composer, explained to me, a perfectly clean tone—a pure tone, one free of

MAINTAINING & UPGRADING
an Older Gibson Amp

Jim Walton recommends that any '50s or '60s amp you buy receive preventative maintenance. Here is his list:

(1) Upgrade to a grounded line cord.

(2) Replace the chemically impregnated paper capacitors with modern capacitors.

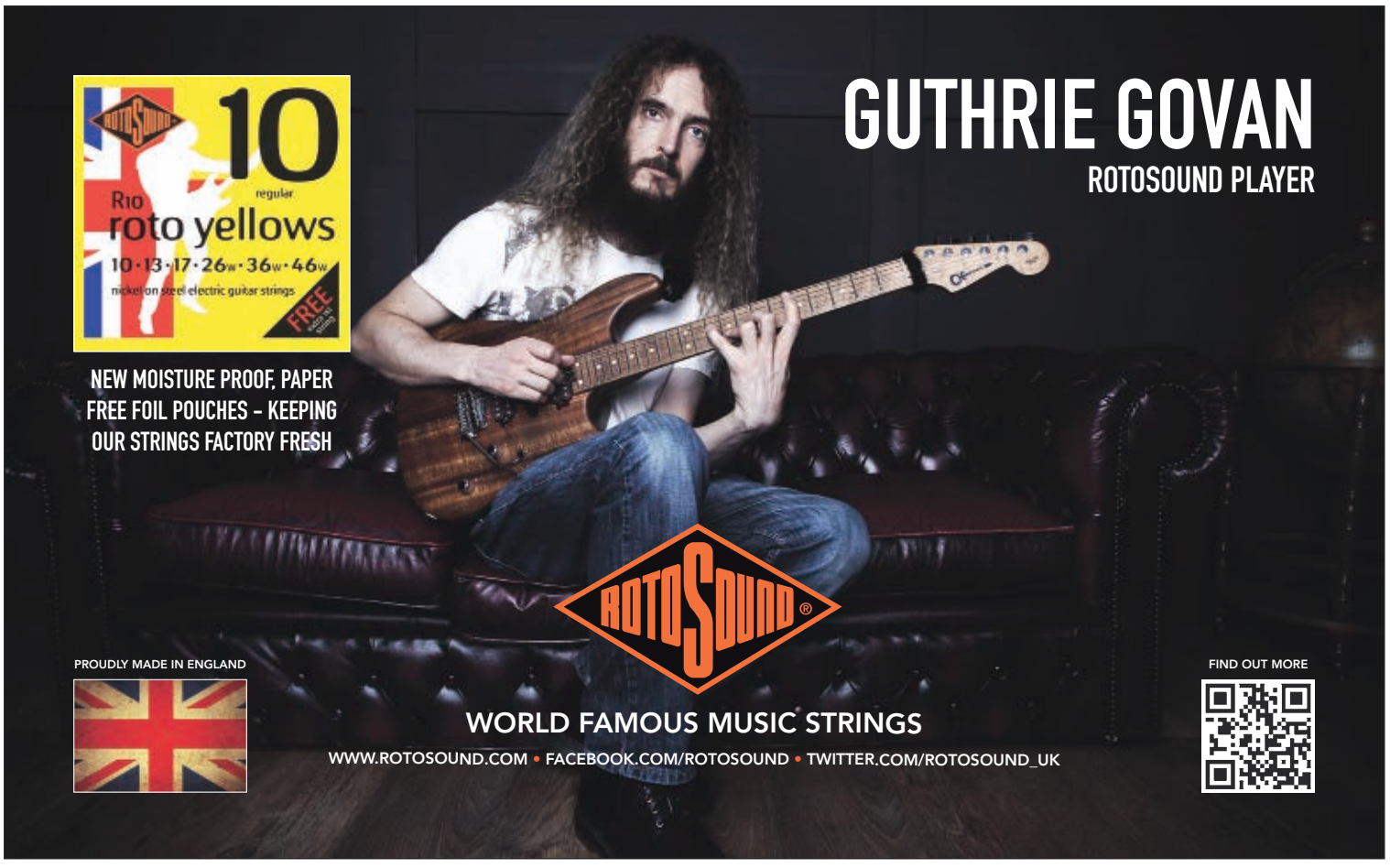
(3) Check chassis grounding.

(4) Test signal capacitors for high-voltage leakage.

(5) Check all tubes and tube-socket connections.

(6) Clean everything.

! *Walton cautions that all of this should be done by an experienced amp tech because of the risk of high-voltage electrical shock.*



Natural Highs...
(...and lows and mids)

You don't have to compromise the sound of your beloved guitar just because you need to pump up the volume. The engineers at Sherwood have spent 30 years perfecting the art of capturing and naturally amplifying the rich, tonal nuances of fine acoustic instruments.

Refine your sound with the model 30R's (pictured) three-band/mid-sweep EQ, continuously-variable compression, and sweet reverb and chorus—paired with a clear, clean microphone channel for great- sounding, portable gigging convenience. Need more? The 60R offers expanded tone-shaping options, gain and master volume, stereo FX, and a fully-loaded channel-strip-style microphone section.

Plug into a Sherwood amp at your local dealer today . . . and create your own natural highs.

SHERWOOD

artistry in acoustic guitar amplification

www.carlsbro.com • info-us@carlsbro.com

REBEL GUITARS

Your Online Destination for Boutique, Handcrafted Guitars.

GJ2

Guitars Made by Grover Jackson GJ2guitars.com

GJ2 HELLHOUNDS IN STOCK AND AVAILABLE AT REBEL GUITARS NOW!

256-872-5577

rebel-guitars.com

any harmonic overtones—would sound like a tuning fork or signal generator. It would have no color, no timbre, no characteristics of the plucked guitar string that produced it, and it would not be a fun listening experience.

What we call a clean sound from a guitar, even an unamplified one, actually consists of a fundamental frequency and four or five audible harmonic overtones. The signal is not pure, so it's technically a distorted signal, but we perceive it as warm, not as distorted. A plucked A will have a fundamental frequency of 110 Hz and a second-order harmonic overtone of approximately 220 Hz. By way of contrast, a trumpet produces about 20 harmonic overtones, and an overdrive pedal produces several hundred harmonic overtones.

What makes tube amps so cool is what they do with these harmonic overtones. A solid-state amp might produce the same number of audible harmonic overtones as a tube amp, but the relative power of the higher order (above seven) harmonics will be different in the tube amp from what it is in the solid-state amp. Craig says, "This is where the 'black magic' comes in: People attribute a warmer sound to an amp when there is relatively more power in the lower order harmonics [two, four, six], or when there is lower power everywhere except the original signal [the fundamental]."

"The simplicity of an amp with no tone controls can lead to a much more natural, flat sound that is really unachievable with a cascade of complicated controls." —Dave Anderson

Okay, what does this have to do with that old Gibson amp? Dave Anderson, a bass player, tube-amp head, and doctoral student in electrical engineering at the University of Rochester translated calculus and differential equations into English for me and *PG* readers. Here it is: "6SJ7 tubes are pentodes, which produce a very linear signal with very little distortion. They create a warm sound because they don't do much to the original signal. They leave it clean, but warm and full. And 6SJ7 tubes do that whether they are in a Gibson Les Paul Junior or a tweed Fender Champ FC-1. The 12AX7 tubes used in Gibson GA-6s and later Fender Champs like the 5E1 and the 5F1, distort a bit more, but keep those distortions in the lower-order harmonics. Amps using those tubes don't sound like solid-state amps either. The overtone series of harmonics is what gives instruments their unique timbres. That is not the same thing as distortion."

Un-wind

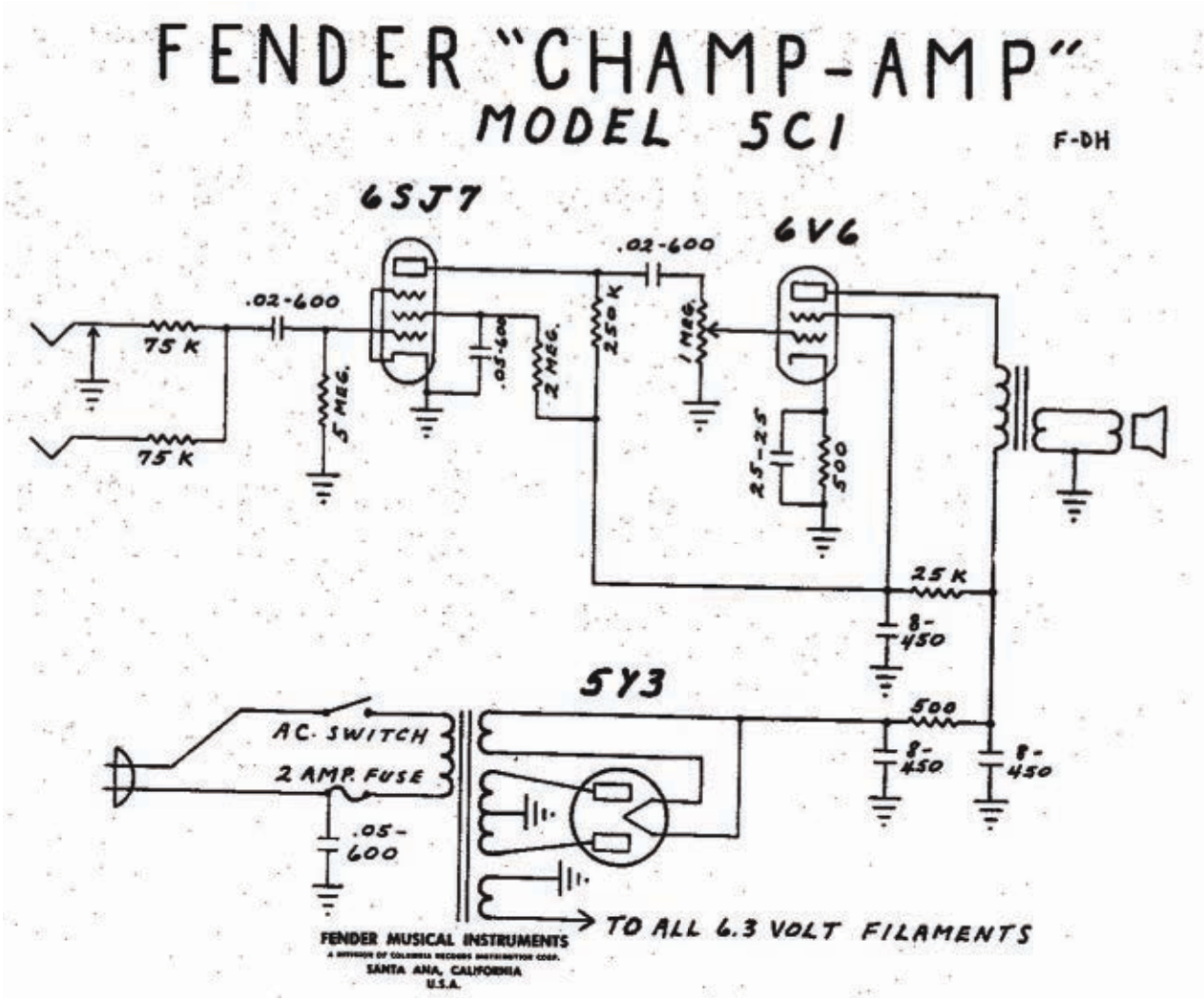
The electric guitar pickup has been wound since1934.
80 years later, we've unwound it.

Original and totally re-imagined, Fluence Multi-Voice pickups for electric guitars are free from the hum, noise and frustrating inductance issues that plague even the most coveted wire-wound pickups, revealing pure, uncorrupted and musical tone.
Unwind, you've waited long enough.

FISHMAN *FLUENCE*™

Everything you hear is true™

fishman.com



Many amps of the '50s and '60s were copies with modifications of what had been successful in radio. Guitar tech Jim Walton says builders were all using the same Western Electric circuits.

I asked Anderson if the later amps—models equipped with tone controls—are better. He doesn't think so: "The advantage of the early amps is that they have no tone control. People say that tone controls eat up signal, but that's not actually the big difference, because normal circuitry can eat up signal too. The important distinction is that tone controls can interact poorly with other electronics in the 1 kHz to 2 kHz region, just where the desirable effects of tubes are most noticeable. The absence of a tone control leads to a nice overall warm sound due to the flat frequency response."

As Dave Hunter writes on the first page of the first chapter in *The Guitar Amp Handbook*, "good tube amp tone really is a very, very, simple thing." Of course, then he goes on for another 230 fascinating pages to explore the details of this simplicity. But that doesn't change the truth of his statement. A tube amp can be very simple and still produce a warm, rich sound—the sound so many artists have used to great advantage in the studio.

Any tube amp will produce a sound rich in natural harmonics, according to Anderson. "Let's say that a guitar's A string, which vibrates at 110 Hz, produces naturally audible harmonics at 220, 330, and 440 Hz. These would be second, third, and fourth harmonics. A 6SJ7 would leave the relative volume of each of these harmonics nearly untouched—what we would call clean and fairly warm. A 12AX7 would likely accentuate the volume of 220, 330, and 440 Hz, and maybe add 550 and 660 Hz, but nothing more. Since the distortion happens in the low-order harmonics and is fairly subtle, it adds to the warmth, but has its own 'color' that's different from other tube amps. Fender, but not Gibson, moved on to the 12AX7 in later versions of their 5-watt amps, adding just a little more warmth. An overdrive pedal will add significantly to these harmonics, as well as adding hundreds more, but the sound will no longer be warm."

THE JOURNEY

The road is long and hard, but worth the journey.

I've bought, owned and played them all.

THIS ONE'S MINE

Nothing fancy.

Great solid ash... My alnico pickups... Solid brass hardware. Just enough finish to let the wood breathe.

Buy one for the price of two or three fillups on the Caddy...

You've never played anything this good for the dough, and that's why my name's on it.

Earl Slick
New York

Slickstraps®

Slick® Aged Pickups

SL59 SL52 SL50 SL54

Slick Guitars
The Real Deal...

Slickstraps®, Slick® Pickups and Slick® Guitars are distributed in North America exclusively by **www.Guitarfetish.com**

"The initial tone control circuits were badly designed," adds Anderson, "and interacted with other controls—such as gain and volume—in unpredictable ways. The problem is that when there are too many parameters all wildly interacting with each other, the tone is unpredictable. A signal chain with tone and volume controls on the guitar, tone and volume controls on effects pedals, and tone and volume controls on an amp is a nightmare. The simplicity of an amp with no tone controls can lead to a much more natural, flat sound that is really unachievable with a cascade of complicated controls."

If Anderson's description leaves you hungry for even more technical information, there's plenty available. Check out other articles in this issue and in *PG*'s previous August "amp issues," the regular "Ask Amp Man" column, and two books I've found very useful in my research: Hunter's previously mentioned *The Guitar Amplifier Handbook* and Wallace Marx's *Gibson Amplifiers*. And for those who want to jump into this subject in all its geeky glory, the original RCA and GE tube manuals are available online, as are Western Electric schematics ... and even the *Radiotron Designer's Handbook*.

All this technical stuff is interesting, but this story's headline promised it would be about undervalued gear. Are the Gibson GA-5 and its descendants undervalued? Should you buy one? It depends on what you're looking for. A Les Paul Junior isn't powerful enough to fill a big room with great sound—after all, it's only a 5-watt combo. But it is powerful enough to deliver warm, rich sound in your living room or for miking through a PA. For the collector or musician who trades equipment a lot—or for anyone concerned about resale value—an old Gibson amp may not be such a great idea, even if it seems like a bargain when compared to a Fender amp at two or three times the price. For a player on a budget, however, it might be just the right thing.

Nate Westgor and Jim Walton get the last words here.

"As we baby boomers age," says Westgor, "most of our playing is done at home, so smaller amps have a lot of appeal. In retrospect, the older Gibson amps were overlooked. In the '50s and '60s they made some really excellent amps."

Walton agrees: "The GA-5 is a bargain because it lacks the public association of the tweed Champ with Clapton and 'Layla.' In fact, all the amps of that era were copies with modifications of what had been successful in radio. They were all using the same Western Electric circuits."

"If price is no object," concludes Westgor, "buy the Fender because it will have better resale value. Gibson makes a good product, but a Gibson amp will be harder to sell. It's like buying a Ferrari—you'll always be able to sell it. But if you don't have $1,200 to spend on a tweed Fender Champ, the Gibson is a great little amp."

www.mo-ka.net

The **Knaggs Chesapeake Series™ 'Severn Trembuck'** featuring double-cutaway, contoured Alder bodies with beveled Sapele tops and Maple caps or two piece book matched Maple tops, available in a variety of unique finishes and color schemes. Our set, figured Rock Maple necks come with Cocobolo or Maple finger boards (8.5" radius on 25.5" scale) and Diamonds (Tier 2) or 12th fret Chesapeake work boat inlays (Tier 1). All Severn models are equipped with Knaggs' proprietary Chesapeake solid steel bridges, driving increased string vibration into the center of the body thus creating sustain and response only the player can feel. See and feel for yourself at a select Knaggs dealer and let us know what you think.

The 25th ANNUAL MUSIC & SOUND Awards WINNER

knaggs best thing

www.knaggsguitars.com/dealers

Developing Songs

BY PETER THORN

Playing along to a drum groove created in programs like SSD4 can be a great way to get the creative juices flowing and develop your chops at the same time.

One of the things I do to earn a living and keep myself busy musically is make gear-demo videos, usually for manufacturers of effects pedals. (My YouTube user name is Sinasl1.) I like to start each video off with a piece of music that's composed specifically to show off the capabilities of the pedal. I find it to be an effective and fun way to demonstrate the gear within a musical context. Many people ask me how I come up with the parts for these "mini songs," so for this month's column, I'm going to focus on developing musical ideas.

Drums and Drum Programming

I like to start with a drum groove since it sets the overall vibe of a song. Playing along to grooves is great for your time and rhythm chops, and compositionally, it can be a great rut buster. I use Steven Slate Drums 4.0 (SSD4), a great-sounding drum program that is relatively easy to use.

I'll call up an SSD4 kit within Logic Pro and find a preset groove I like, jam along, and develop a guitar riff based on where the groove takes me. I'll then usually lay down a scratch guitar part. Once that's done, I end up tweaking the drums quite a bit. I always make sure the kick pattern is complementary to the guitar part, without slavishly following its rhythm. Putting fills in appropriate places, changing the pattern up for the various song sections, and varying velocities and timing can all add up to a very real-sounding drum track.

Crash Course in Bass Guitar

Once I've programmed my drum part, I'll plug in my bass with the goal of laying down some cool low end. Locking in with the kick is essential. It's interesting to note that guitarists are sometimes surprised when they try and learn a bass part to a song they already know on guitar. I mention this because a great bass part can be subtly or radically different from the rhythm guitar.

A good example is AC/DC's "Back in Black." While the guitars play an E–D–A chord progression in the verse before going into that classic descending pentatonic lick, the bass plays E–D–C♯ (the 3 of the A triad) before dropping out for the lick. It's subtle, yet *so* cool, and it adds just the right amount of complexity to a simple rock song.

The Almighty Guitar

This brings us to our chosen instrument. Six strings and the truth! To start, I'll lay down what I consider to be the main rhythm-guitar part (most likely the riff or chords that I initially wrote to the drum groove). If I'm doing a video demo of, say, an overdrive pedal, I'll usually use a clean amp and then set the pedal for the most complimentary drive tone I can dial up. I always pay close attention to the groove so I can lock in and make it sound as much like a band as possible. The last thing I want is to sound like a guy jamming over a canned bass and drum track.

I'm *probably* guilty of doubling parts too much in the studio, but I just love the sound of doubled, hard-panned rhythm guitars. That said, sometimes it's best to leave a single mono-rhythm part be. Check out Dean DeLeo's work on some of the later Stone Temple Pilots releases. I love that he would play a tough rhythm part but *not* double it. They'd just have it panned one way or the other, and let that be the main guitar part that drives the song. Then when another complimentary part comes in—usually panned the other way—it really has an impact.

Doubling can make things sound huge, but every time you add a part, you are going to effectively smooth over the cool subtleties (like little timing and dynamic variations) that are there in existing parts.

When it comes to melodies and soloing, it's like painting a picture for me in terms of note choice, dynamics, and phrasing. What is phrasing? Basically, I think of phrasing as the choices you make musically. It's great practice to sing a part

when coming up with a melody and solos *before* you try to play it. You should use your *musical* instincts, not just your guitar instincts. Your heart and brain will tell you what needs to happen, and then your hands will follow. I can almost guarantee that you'll come up with more memorable and less-predictable parts this way.

Putting It All Together

Last, but not least: Listen to everything together and decide if it all fits. Are all the parts contributing towards the common goal of making a great song? You want to make sure none of the parts are stepping on one another. If there's a little melodic-bass riff happening at the end of a verse leading into a chorus, maybe you could let the guitar ring out and make space for the bass. If there's a guitar solo, maybe end it a few beats before the next song section starts to leave room and some breathing space for the pending melody. What you *don't* play is as important as what you do play. Space in the music is important, so don't be afraid to leave holes for other musical elements to shine through.

Happy creating and see you next month!

PETER THORN
is an L.A.-based guitarist, currently touring with Melissa Etheridge. His solo album, Guitar Nerd, *is available through iTunes and cdbaby.com. Read more about his career at peterthorn.com.*

Road Hardened Design.
World-Class Sound.

Everybody has heard of carbon fiber guitars, but until now, nobody has heard how unbelieveably good they can sound.

Matt McPherson, the founder of McPherson® Guitars, has partnered with Ellis Seal, aerospace engineer and founder of Composite Acoustics® to create a carbon fiber instrument that is not only resistent to changes in temperature and humidity, but is designed with a patent-pending carbon fiber body material and bracing system meticulously fine-tuned to produce tonal warmth and dynamic range that, until now, were only available in high-end wood guitars.

Kevin Michael™ CARBON FIBER

MADE IN THE USA BY McPherson GUITARS | McPHERSONGUITARS.COM

TONE CONTROL

Within YOUR Reach

Three new ways to put excitement in your rig: Two new overdrive pedals with a fit-to-size version of our legendary 5-band EQ: Flux-Five™ and Throttle Box EQ™. Plus the full-size classic Boogie® Five-Band Graphic in a Pedal Format. Great in your Effects Loop or your amp's front end. Hand-Crafted in Petaluma, California.

MESA/Boogie® • 1317 Ross Street • Petaluma, CA 94954 • 707-778-6565 • mesaboogie.com

MESA ENGINEERING®

UNLEASH THE PRIEST!

Brit metal pioneers ***Judas Priest*** *recruited guitarist Richie Faulkner in 2011, refreshing the creative process for the group's 17th album,* Redeemer of Souls.

BY JOE CHARUPAKORN

Glenn Tipton is a longtime Hamer user. In this photo from 1990, he plays an angular neck-through GT model.

With a discography that includes iconic albums like *British Steel* and *Screaming for Vengeance*, and a penchant for S&M-influenced attire, Judas Priest pioneered the sound and look of heavy metal. After a four-decade reign as one of the greatest metal bands ever, Judas Priest discussed a final farewell tour in late 2010. As speculation grew about the band's possible retirement, guitarist and founding member K.K. Downing unexpectedly quit. But as is often the case in the music biz, the end was not the end. Richie Faulkner, guitarist for Lauren Harris (daughter of Iron Maiden's Steve Harris), was quickly recruited to fill Downing's shoes, sharing guitar duties with longtime band member Glenn Tipton.

Replacing a guitarist with a 40-year legacy is a Herculean task requiring both guitar prowess and balls of titanium. Faulkner made his Judas Priest debut on *American Idol*, and soon after Priest embarked on a yearlong world tour, which spawned the live *Epitaph* DVD. Faulkner quickly proved himself on the road, but as the band prepared to record its next album—its first with Faulkner—questions emerged. How would Faulkner fit in as a collaborator? Would Tipton be able to adapt after decades working with Downing?

Tipton entered the sessions with an open mind. "That's one of the big lessons," he says. "When somebody comes in and sees it in a different way, let them go with it for a minute. Live with it. You never know whether you're going to like it or not. If you don't, you can always go back to what it was."

Tipton's faith proved well founded. *Redeemer of Souls*, Judas Priest's 17th release, is full of killer riffs, supersonic twin-guitar harmonies, classic metal moves, and epic anthems. Inspiration was in ample supply during the recording session—the deluxe version of the album features five bonus tracks.

Premier Guitar caught up with Tipton and Faulkner in Midtown Manhattan to discuss the writing of *Redeemer of Souls*, the duo's approach to crafting layered parts, and, of course, gear.

FLAGSHIP

GT POWER ON YOUR DESKTOP

- PREMIUM AMPS AND EFFECTS FROM GT-100 VERSION 2.0 IN A STYLISH DESKTOP DEVICE
- INCLUDES BOSS' LATEST COSM AMP MODELS, POWERFUL MDP EFFECTS, AND MORE
- ADVANCED USB AUDIO/MIDI INTERFACE AND MONOPHONIC GUITAR-TO-MIDI CONVERSION
- XLR MIC INPUT WITH PHANTOM POWER, 1/8" INPUT FOR A SMART PHONE OR MUSIC PLAYER, PLUS JACKS FOR EXPRESSION PEDALS AND FOOT SWITCHES
- POWERED BY USB BUS OR INCLUDED AC ADAPTER

BOSS

GT-001

GUITAR EFFECTS PROCESSOR

Get videos, artist tips, and free gig-ready patches created by top pro guitarists like Steve Lukather, Randall Waller, Stuie French, Fernando Miyata, Alex Hutchings, Gundy Keller, Matias Kupiainen, and Rafael Bittencourt at www.BossToneCentral.com

TONE CENTRAL

Richie Faulkner (far left) joined Judas Priest in 2011, bringing new energy to the long-running band.

Were you concerned how the new band dynamic would impact the writing process?

Glenn Tipton: We hadn't worked with Richie before on a writing level, so the first couple of things he presented to us were quite crucial. It was amazing, because everything Richie came up with was just so Priest, and it evolved from that point on. For the first time ever, we actually wrote on the road. Richie would go down in the afternoon, set up his recording rig, and kick stuff out. When we had time off, we sat down and started piecing everything together. What we normally do is write our own ideas—including Rob's lyrics and vocals—pool them, and before you know it, it takes shape into songs.

YOUTUBE IT

To see and hear metal gods Judas Priest in action, check out these clips.

A live version of Judas Priest's classic anthem "Breaking the Law" from a 2012 London concert featuring new guitarist Richie Faulkner.
YouTube search term: Judas Priest Breaking The Law Epitaph DVD 2013

A full-concert video of vintage Priest rocking the massive US Festival in 1983.
YouTube search term: Judas Priest Live Festival 1983 FULL

Judas Priest performs "You've Got Another Thing Coming" at the 2011 High Voltage Festival in Victoria Park, London.
YouTube search term: Judas Priest You've Got Another Thing Coming Pro-Shot High Voltage Festival 2011

Photo by Ken Settle

SHOULDN'T YOU USE THE MOST REVOLUTIONARY STRINGS EVER CREATED?

UNCOATED, UNINHIBITED BRILLIANT TONE THAT LASTS UP TO FIVE TIMES LONGER.

Do you really want to pay twice as much to suffocate your tone with coated strings? Excuse us, but that sounds a little crazy! Instead, unleash your tone with HELIX Strings from Dean Markley. Constructed with tighter and closer wraps that deliver amazing sustain, bucketloads of output, and rich resonant tone, HELIX strings last up to 5 times longer than just about any other string out there. They're top quality, gorgeous-sounding strings at a normal human price.

Shouldn't you play with the best-sounding, most kick-ass strings on the planet? More at DeanMarkley.com

Dean Markley

The source of your sound.

Richie, did you have to adapt your own writing style to fit the Priest mold?

Richie Faulkner: I never think you should limit yourself in what you do just because it might not sound like you want it to. Put it on the table and see if it floats. Sometimes it doesn't—maybe it's not quite right, or another idea is better. But we all put forward everything we had. I'd sometimes think, "This doesn't sound like a Priest riff," but then the band would give it the Judas Priest treatment. It's surprising how much you can take something you don't necessarily think sounds like Priest, and have it becomes that. Growing up, I'd look to bands like Priest when learning how to write a song—that's how these guys taught me back in the day. So when I came into the band, I'd already done a master class in writing Judas Priest songs. They're what I've wanted to write since I first heard heavy metal.

Did you feel a sense of competition with older Priest material?

Tipton: No. There's a danger in that, because if you try to write a song like a previous song, it's already been done. We just wing it, really, and if it works and the room lights up, then we've got a song. If it doesn't, it's best to put it on the shelf, or maybe just use parts of it. The worst songs are the ones you have to struggle to write. The best songs are always the ones that just click.

Many of your songs like "Cold Blooded" and "Down in Flames" have layered intro parts. Do you write those collectively?

Tipton: Priest has always been known for light and shade. You start a song with a nice, simple melodic piece, and then when the heavy riff comes in it sounds more powerful. A lot of the songs start like that. Richie also came up with a lot of those parts. Like I said, it was unbelievable when he entered the band.

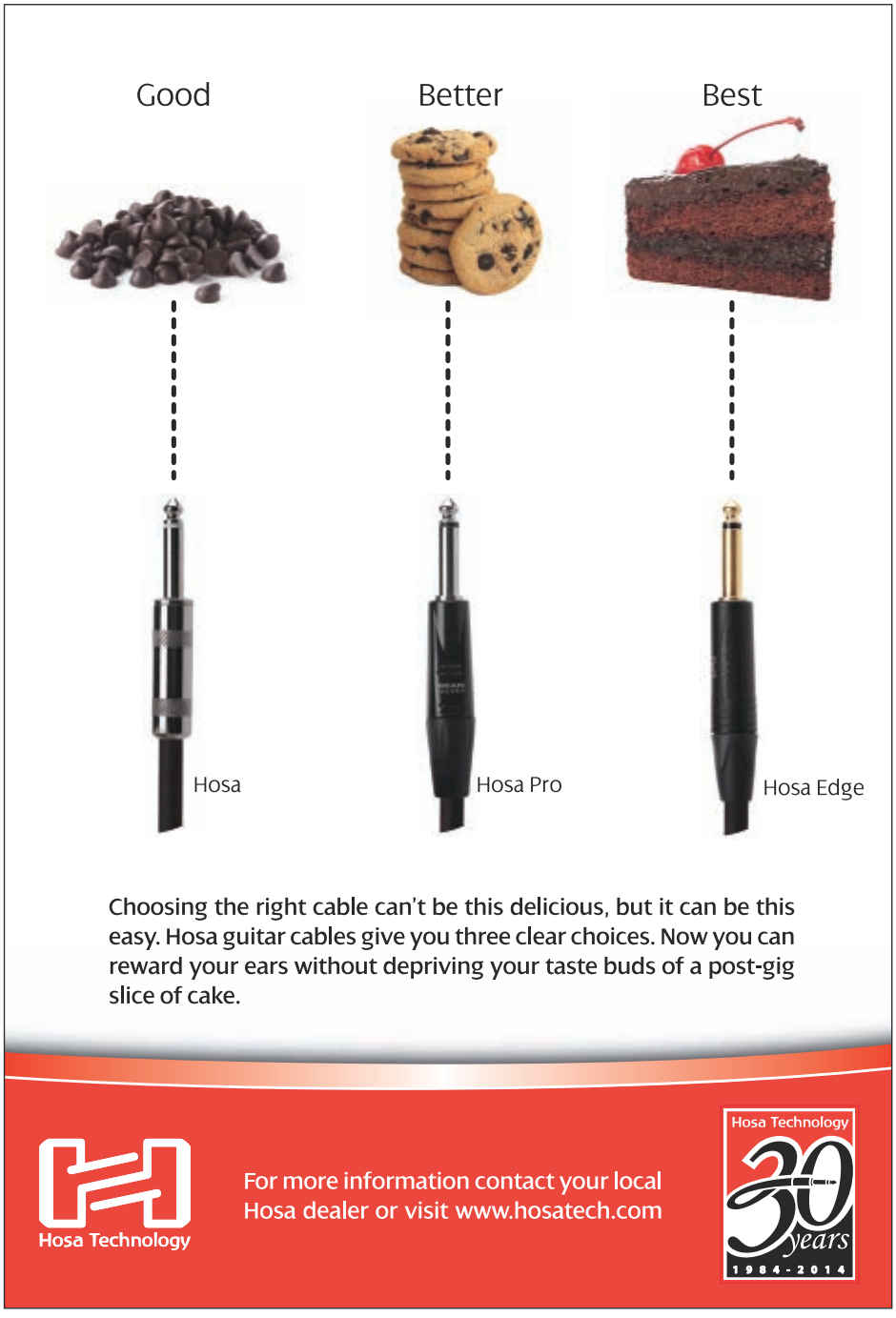
"The worst songs are the ones you have to struggle to write. The best songs are always the ones that just click." —Glenn Tipton

Songs like "March of the Damned," "Hell & Back," and "Crossfire" have strong bluesy elements.

Faulkner: I think Judas Priest, as a 40-year tapestry of music, has a lot to take from. There are blues elements, hard rock elements, and heavy metal elements. Priest had been based in the blues—it was a natural thing when we were all growing up—and evolved from there. The blues is where it all came from anyway.

Richie, do you replicate K.K.'s parts live, or do you improvise in those sections?

Faulkner: Part of my attraction to K.K's playing—or Hendrix's—is the improvisational aspect of it. There were certain motifs on the record, but live, they would go elsewhere. That was always a musical turn-on for me. It's why I got into guitar. So that's what I've done live, and that's how I naturally approach solos: taking motifs *Continued on p. 90*



HEIR TO THE TONE

PEAVEY ELECTRONICS VK INNOVATION. AMPLIFIED.

The Peavey ValveKing® Series

ValveKing® Combo 50 | ValveKing® Micro Head | ValveKing® Combo 20

Hartley Peavey developed the ValveKing® Series of amplifiers with one goal in mind—to put real boutique features and tone technology into the hands of real working musicians. In stark contrast with similarly featured "boutique" amplifiers, the ValveKing is no trophy-room amp—it's rugged, road-ready and made to be played. This is the kind of innovation you've come to expect from Peavey.

RECORD THE KING WITH TWO CABINET SIMULATED DIRECT OUTPUT OPTIONS

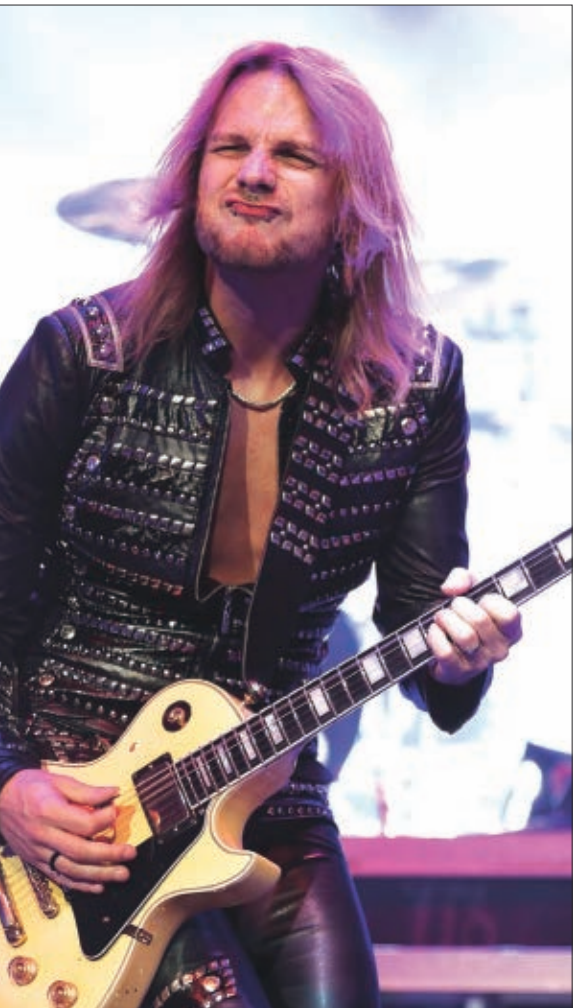
T.S.I.™ TUBE MONITORING WITH LED PASS/FAIL INDICATOR LIGHTS

VARI-CLASS™ CONTROL ADJUSTS RESPONSE FROM CLASS A/B TO CLASS A, OR ANY TONE IN-BETWEEN.

If tone rules YOUR world, your craft commands that you visit your authorized Peavey Dealer or visit us online to learn about the new ValveKing Series today!

WWW.PEAVEY.COM

INNOVATION. AMPLIFIED.®



RICHIE FAULKNER'S GEAR

GUITARS

Gibson Les Paul Custom with EMG pickups
Gibson Custom Shop Flying V with EMG pickups

AMPS

ENGL Powerball II
ENGL cabs with Celestion Vintage 30 speakers

EFFECTS

Boss CH-1 Super Chorus
MXR Carbon Copy
MXR Uni-Vibe
Boss overdrive
Dunlop Cry Baby
Dunlop Rotovibe

STRINGS, PICKS, & ACCESSORIES

Ernie Ball Power Slinky strings (.011-.048)
Dunlop strings (.011-.050)
InTuneGP picks (2 mm)
custom straps (by Ray Brown, who makes the band's stage clothes)

GLENN TIPTON'S GEAR

GUITARS

Hamer GT with EMG 81 pickups and Kahler tremolo
Hamer Phantom with EMG 81 pickups and Kahler tremolo
Gibson Les Paul

AMPS

ENGL Invader
ENGL Ironball
ENGL cabs with Celestion Vintage 30 speakers

EFFECTS

Yamaha SPX90II
Yamaha remote latch switch for Yamaha SPX90II
Yamaha MFC05 MIDI Foot Controller
Mike Hill single-loop controller remote switch
Dunlop Cry Baby rack wah
Dunlop remote wah controller for rack wah

STRINGS, PICKS, & ACCESSORIES

Ernie Ball custom set strings (.048, .038, .028 Pure Nickel Wrap and .016, .011, .009 RPS Reinforced Plain Steel),
thin Ernie Ball nylon picks
custom straps (by Ray Brown, who makes the band's stage clothes)

"I was brought up on the band. You get the Flying V and you practice moves in front of the mirror when you're a kid. You've already done your apprenticeship."
—Richie Faulkner

Photos by Ken Settle

I was pretty much afraid of everything.
Afraid of the world, afraid of speaking.
Music was the voice I didn't have.
Guitar Center
ALL WE SELL IS THE
GREATEST FEELING ON EARTH
JAMES HETFIELD AT GUITAR CENTER

mono®
BEYOND GIG BAGS™

THE VERTIGO™

THE DUAL™

MONOCREATORS.COM

Photo by Ken Settle

from the original and adding my own style. It's being respectful to the original, but also being respectful to yourself. You don't want to be a clone. You want to put your own stamp on things.

Glenn, is it strange to hear a different take on songs you've played for decades?

Tipton: The way Richie's blended into the band is still a miracle to me. As he said, he's doing the job he's supposed to do, but he's doing it in his own way.

Faulkner: I was brought up on the band. You get the Flying V and you practice moves in front of the mirror when you're a kid. You've already done your apprenticeship.

The album closer, "Beginning of the End," starts out mellow and stays in that zone. I was expecting something more epic to happen.

Faulkner: You do expect that—it's the format for a lot of ballads. The song is epic in its own right, but not in the way you might expect it to be. It stays mellow. It worked that way. The song speaks for itself.

"Never Forget," the final cut of the five bonus tracks, is nostalgic and sentimental. Is it a tribute to someone?

Tipton: It gets a little heavier toward the end when the electric guitar chords come in. It's a "thank you," really, to all the fans for their support throughout the years. There are some great phrases in there.

Tell us about your gear. What are your main axes?

Tipton: I use Hamers. I haven't worked with them for years, but the guitars I designed with them suit me, so I still use them. The ones I had made are slightly different: They have small little points—like the SG-type shaved neck—that make it easier for me to play. The GTs have a one-piece neck and body, which is great because if I do any stretches in my playing, I can get the guitar in the right place [*mimes a guitar pointing up at a 45-degree*

angle]. There's very little wiring in some of them. On some of the earlier ones, I just had one treble pickup.

Faulkner: When I'm in the States, I drop the bags off at the hotel and visit local mom-and-pop guitar stores. I'm developing a little bit of an addiction [*laughs*]. These guitars are hanging on the wall, and it's like, "Where have they been? What stories can they tell? Who's played them? Which wives have tried to sell them?" I hunt them down. I love it. I love the smell of them. I primarily play Les Pauls. I also have some Flying Vs, SGs, and a couple of Strats. It's forever growing. I'm actually going to make a run to 30th Street [*an emerging music row in NYC*]. I'm getting excited now [*rubs hands together*]. I know there's an endless debate about chambering and solidbody versus light body. That in itself is great fun to be part of.

Is there a tonal difference between the chambered and non-chambered ones?

Faulkner: I don't think you can ever tell. If you're watching someone play a heavy guitar, you've got nothing to compare it to anyway. If you're thinking about that, you're at the wrong show. You should be enjoying the music—it's all about the feel. If it feels right to the player, then you can create the best stuff you can create. I like the feel of a heavy guitar—it's just something that you get used to. If it's a bit lighter, you might be thinking too much about it. That's the way I like to approach it.

Glenn, tell us about your modified EMG pickups.

Tipton: They're just sort of rewound to my specs to give me the sound I want. That's what pickups do: give you great tone and sustain. The same pickup on a different guitar sounds different anyway. I use Hamer Phantoms and GTs onstage, and if you put the same pickups in each guitar, it sounds different. They have different woods. They just have to be reliable and get me through shows.

What about you, Richie?

Faulkner: I use the 81/85 combination, which was the Zakk Wylde set back in the day. I got them because he used

them, and James Hetfield and all those guys were using them as well. Then I started using the 57/66 set—the 57 is in the bridge, and the 66 is in the neck.

That set is relatively new and not as common as the 81/85. What qualities does it bring out in your guitars?

Faulkner: It's based on a PAF-type sound while still retaining the active circuitry for punch and definition. I was looking for something like that, so I emailed the guys, and they sent a couple out. I didn't even try them out first—I just put them in the Flying V and went out on the road with it. It was like a baptism by fire. Onstage, they're either going to sink or swim—and they swam. It's that feel thing. You just know in three seconds, and you don't have to think about it.

"I would never tour without an
Audix OM 7.
It's my desert island microphone."
Andy Tinsley - FOH Engineer, Alkaline Trio

In 1986, Audix redefined the performance standards of dynamic vocal microphones with our OM Series. With our exclusive VLM™ (Very Low Mass) capsule technology, the OM Series mics tolerate high SPLs, have superior feedback rejection, and deliver incredibly clear, accurate sound. Mechanical design innovations have reduced handling noise and increased durability.

Audix OM Series dynamic vocal microphones are widely used on stage by professionals around the world.

"The tight pattern of the OM7 helps to capture just the vocals. Then I can compress it just a bit and ride the levels. There's no wash of cymbals and stage clutter that can interfere with the vocal mix."
Simon Fuller - FOH, Dry The River

"The noise rejection characteristics of the OM6 and OM5 have been the total selling point for us."
Ciaron McKenna - FOH Engineer, Alex Clare

AUDIX MICROPHONES

www.audixusa.com
Tel: 503-682-6933 Fax: 503-682-7114
Audix Corporation, P.O. Box 4010 Wilsonville, OR 97070
©2013 Audix Corporation All Rights Reserved.
Audix and the Audix Logo are trademarks of Audix Corporation

How do you guys differ in what you look for in tone?

Tipton: I'm on the side with the bass, so I have to contend with the bass and drums. My sound tends to be a bit more trebly, so I can hear it and it cuts through. But that works because Richie's tone is a little bassier.

Faulkner: Definitely.

Tipton: And the two tones really work together.

Faulkner: Coming in, my sound was like a jazz or rhythm and blues tone. I grew up in a band and played that sort of sound anyway so it was in the ballpark.

What about amps?

Tipton: On the album we used Engl amps and Engl cabs with Celestions. They miked up really well, and that's not always easy to do. You can get a great sound in the studio, then you go and listen to it in the guitar room, and it sounds terrible—it sounds fizzy, or distant, or too close, or you haven't got the spectrum of the sound there. We went for a live-sounding album, something with balls and a bit of true grit, and we achieved it. I use those amps onstage too, and they've worked out really well. And we tried Engl's Ironball, the little one. It's a fun little amp that sounds great.

Faulkner: In the studio we used 15-watt combos, 30-watt combos, heads with big cabs, the Ironball. They all had something unique. I've got the Powerball II, and yours is a modded Invader, isn't it?

Tipton: Yeah.

Touring and playing your hits for so many decades, how do you keep things fresh?

Tipton: People often ask, "Do you get sick of playing 'Breaking the Law?'" But when you hear the roar of the crowd, they sound just as good every single night. It's just as exciting to play.

Faulkner: Before we collaborated on the new record, I was kind of earning my stripes in the live scenario. It was like playing the best songs in the world with the best cover band ever, you know? *That* feeling. The fans in the front row are there, they have their hands up, they're singing with you and looking you in the eyes, and for them it's an experience. And for us it's an experience as well. When you connect to people like that, it's different every night. It never gets boring, and the passion from the fans is just overwhelming, really. Twenty or thirty thousand people in the room, all with you. That can *never* get boring!

ENROLL for FALL 2014
Develop your tone and technique in the Guitar Program at Musicians Institute, the College of Contemporary Music.
Development in these areas + more:
Pro-level Musicianship
Technical Skills
Performing Experience
Financial Aid + Scholarships Available
www.mi.edu
MI COLLEGE OF CONTEMPORARY MUSIC

LUST
PICKUPS
IN THE VINTAGE TRADITION
NECK
HANDMADE IN THE U.S.A
www.lustfortone.com
(561) 282-6607

Tropically
52 steps.
2 hours.
handmade.
thejulietcollective.
BUY AN ORANGECREAM TODAY!!!
thejulietcollective.com
fxpedal.com
pedalgeek.com
we don't cut corners

The Dos and Don'ts of DIY

BY MARK DALTON

Raising or lowering the saddle to adjust the action on an acoustic instrument is a fairly simple do-it-yourself task.

We've all been there. On the day of a big gig or a fun jam with friends, you open your case to find that your guitar has "nautilus action" (meaning that you could get a pretty good workout from trying to play the thing). Or just the opposite, it's buzzing like crazy. With wood being wood—and the fact that the guitar has about 180 pounds of force applied to it when it's strung with mediums and tuned to standard pitch—your action *will* change. And sometimes the change is not so subtle.

So what do you do if your local repairman isn't open for business that day? Start by sighting down the neck to check the relief. There should be a slight forward bow to the neck. I won't go into too much detail on measuring relief, but know that if your action came up suddenly and there appears to be a *lot* of bow in your neck, it's okay to give the truss rod a tweak to straighten the neck a bit.

But don't go too far: Be sure to leave a bit of relief. If you stop short of completely flattening the neck, you will not do any damage. About the only way that you *could* damage anything would be to tighten the rod until you strip out the nut, but you're likely to create a back bow and an unplayable low action long before you reach that point.

Here's a tip: It's always a good idea to know what the relief looks like when your guitar *is* performing well. That way you'll know what you need to do to get it right when there's a problem.

You can also lower the action by sanding a bit from the bottom of the saddle. The way to know how much to take off is to remove twice as much from the bottom of the saddle as you wish to lower the action at the 12th fret. For example: If your action is reading 8/64" from the top of the 12th fret to the bottom of the 6th string and you wish to get to 6/64", you will need to remove 4/64" from the bottom of the saddle.

Note: *Make sure to keep the bottom of the saddle as flat as possible when doing this.*

You can raise the action at the saddle with the old tried-and-true method of adding a credit-card shim, at least as a temporary fix. You'll want to remove the shim later on and install a new saddle to achieve the best possible tone and volume. You're not likely to damage the guitar by doing this and it could get you out of a jam. At the very worst, you might have to buy a new saddle (and need to make a call for a new credit card).

If you find that your action is too low at the nut because you're getting buzzing on open strings, you might have to get a qualified repairperson for the job. But if you're the adventurous type, you could try making a new nut, or filling and re-filing the slots. You're unlikely to cause any *real* damage. Just make sure to take care if you use Super Glue or the like on the job, as it tends to get everywhere you *don't* want it to go. (And there's always that risk of gluing your fingers together!)

Some people want to do self-repairs in the area of finish, but these repairs are usually best left to the professionals. For some reason, it seems to be in vogue for folks to buy a matte-finished guitar and then try to buff it to a polished-finish shine. I don't recommend this. The chances that anyone—professional or amateur—would be able to buff down *just* past the outer matte-finish coats and get to the gloss-finish coats underneath without going through the finish entirely in quite a few places are nil.

You should be able to do minor handbuffing of scratches and such using a soft cloth and products like Novus scratch remover. During cleaning, you can also use naphtha as a mild solvent without fear of harming the finish. It's very good for cleaning off substances that polishes won't. You may want to do an out of the way test area first, but I am unaware of any finish that naphtha will dissolve. Then finish off the job with a good polish by hand. We use the Resolution polish from Beard Guitars.

As for your fretboard and bridge, you can easily clean them using 0000-grade steel wool and finishing up with fretboard oil or plain lemon oil.

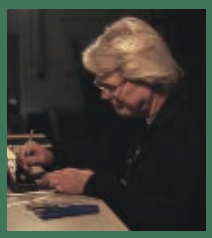
It's a great idea to learn some basic do-it-yourself setup and cleanup chores on your instrument. But just as important is to know which jobs you should *not* undertake.

MARK DALTON *is a founding partner of Huss & Dalton Guitar Company. When not building guitars, Mark and his wife, Kimberly, tend to the draft horses and mules that inhabit their farm in the Piedmont region of Virginia.*

MYRTLEWOOD

This gorgeous hardwood grows primarily in a 90-square-mile area along the Pacific Coast. The rugged Oregon climate infuses myrtle with sparkling clarity and definition of sound rarely found in a single tonewood. Often used for custom instruments, this magical wood is seldom seen in production guitars.

Myrtle Grove



"I love ***myrtlewood*** because of its beauty in variety of figure, color and grain patterns. The tonal quality seems to be a blend of all the best tonewoods out there. It is local to Oregon and a Breedlove original."

- KIM BREEDLOVE, *Master Luthier*

THE OREGON SERIES

Access the magic...immerse yourself in the myrtlewood experience.
To learn (and hear) more visit ***breedlovesound.com/oregon***

Breedlove

Distinctively Crafted Sound

MINIFOOGERS

100% ANALOG GUITAR PEDALS

DELAY • TREM • DRIVE • BOOST • RING • UNDER $200

moog

All rights reserved to Moog Music Inc. on all text and graphics here within. Reserved Minifooger, Moog Trademarks.

MF BOOST

The MF Boost is an Expression enhanced, twin topology boost pedal that allows you to select between an articulate VCA signal path and a colored OTA signal path. This completely unique boost design works with your guitar and amplifier to conjure boutique sound and responsiveness from any guitar & amplifier combination. Its natural compression and sound enhancement also bring out the best tone and performance in other effects pedals.

MF DRIVE

The MF Drive is a unique, filter-based overdrive pedal that employs a Moog Ladder Filter, boutique FET amplifiers, and classic OTAs in its drive section making it highly reactive to input gain and picking dynamics. The bi-polar tone control and sweep-able filter work with input gain to offer each player completely customizable sounds from creamy British overdrive to cranked American tube amplifier and even fuzz. When the filter Peak switch is engaged and an expression pedal is connected, the harmonic content is shifted to the filter's cutoff position adding tonal and dirty wah performance possibilities not found elsewhere.

moog

All rights reserved to Moog Music Inc. on all text and graphics here within. Reserved Minifooger, Moog Trademarks.

MF RING

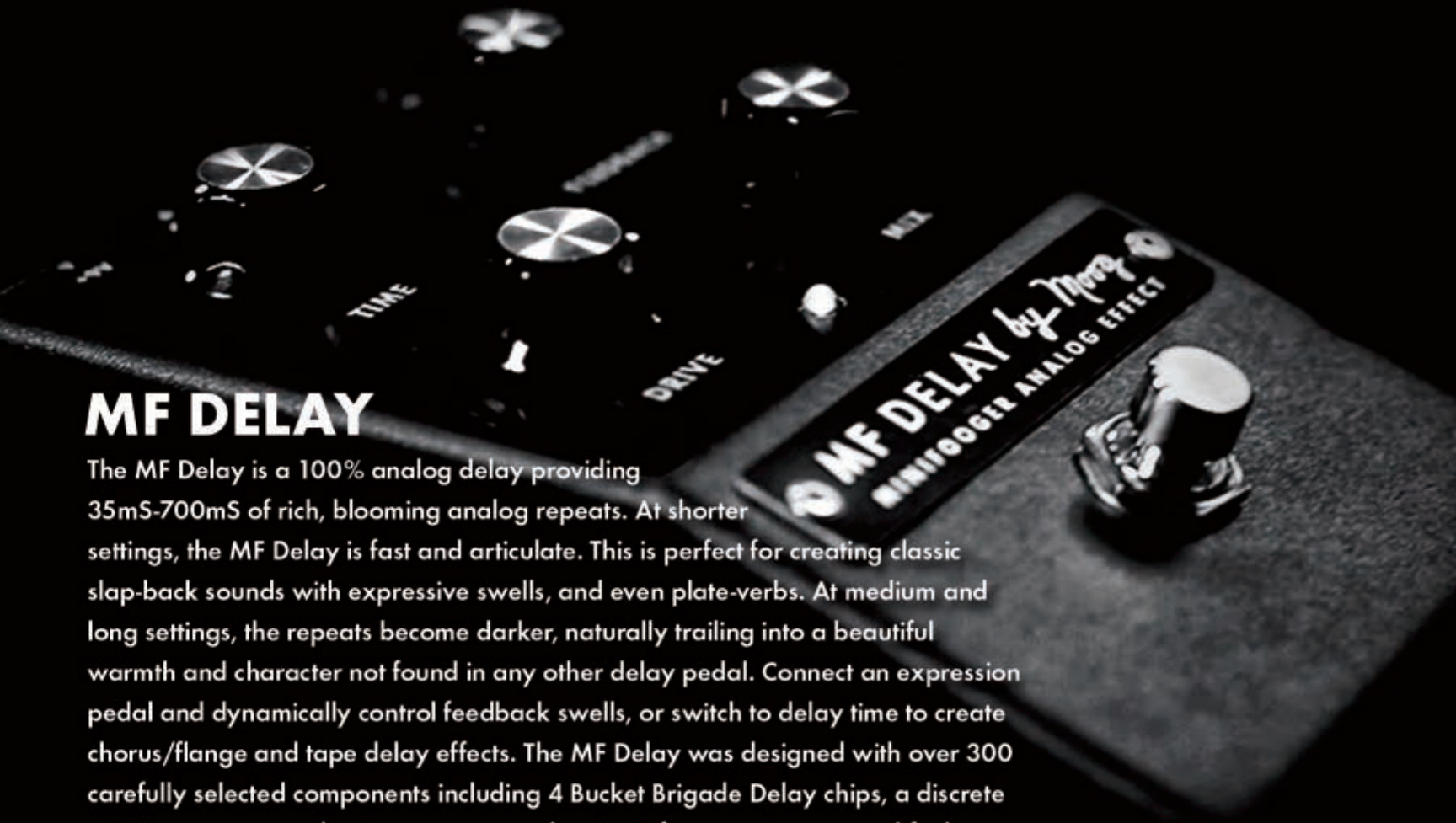
The MF Ring is an analog ring modulator that is based on the best selling Ring Mod in the world, the Moogerfooger MF-102. Its unique tone voicing circuit adds a new musical dimension to ring modification, making it easy dial in everything from octaves and choral dissonance to harmonic undertones and synthesized lead lines. The expression pedal input provides hands-free control of the Freq control for sound sweeps, pitch shifting effects, and playing between two scales on the fly. Unlike other ring modulation pedals, the MF Ring can also be battery powered.

MF TREM

The MF Trem is an analog tremolo pedal based around a balanced modulator and Sub Audio VCO. This unique design creates a wide range of tremolo effects that are based on phase cancellation and addition. Create classic optical and hard tremolo effects that are reactive to harmonic content, or push up the depth control and shift into the beginnings of lush phasing and chorus. The variable Shape control interacts directly with Tone and Mix to craft subtle swells and gallops to rhythmic percussive, and swirling effects. An expression pedal input adds control over tremolo Speed for beautiful, hands-free swells and rotary effects.

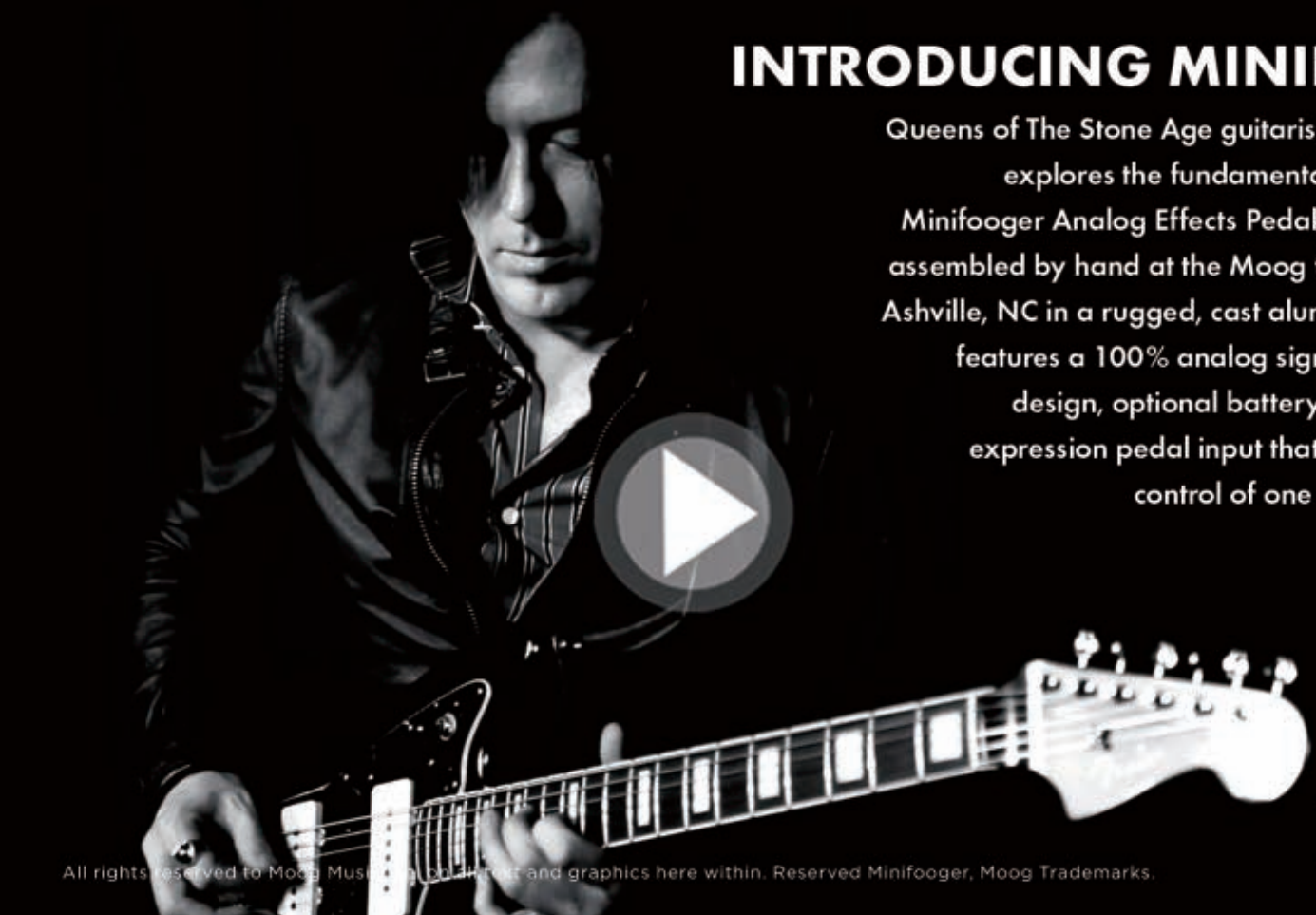
moog

All rights reserved to Moog Music Inc. on all text and graphics here within. Reserved Minifooger, Moog Trademarks.



MF DELAY

The MF Delay is a 100% analog delay providing 35mS-700mS of rich, blooming analog repeats. At shorter settings, the MF Delay is fast and articulate. This is perfect for creating classic slap-back sounds with expressive swells, and even plate-verbs. At medium and long settings, the repeats become darker, naturally trailing into a beautiful warmth and character not found in any other delay pedal. Connect an expression pedal and dynamically control feedback swells, or switch to delay time to create chorus/flange and tape delay effects. The MF Delay was designed with over 300 carefully selected components including 4 Bucket Brigade Delay chips, a discrete JFET input stage, and a vintage compander circuit for superior tone and feel.



INTRODUCING MINIFOOGERS

Queens of The Stone Age guitarist, Troy Van Leeuwen, explores the fundamental capabilities of all 5 Minifooger Analog Effects Pedals. Each Minifooger is assembled by hand at the Moog factory in downtown Ashville, NC in a rugged, cast aluminum enclosure and features a 100% analog signal path, true bypass design, optional battery power, and a single expression pedal input that provides hands-free control of one specified parameter.

moog

All rights reserved to Moog Music Inc. Content and graphics here within. Reserved Minifooger, Moog Trademarks.

THE HARDEST WORKING GUITAR

NILS LOFGREN AND HIS TAKAMINE EF508KC

Photo: Jo Lopez

*See the entire line of Takamine guitars at **takamine.com**.*

©2014 KMC Music, Inc. TAKAMINE® is a registered trademark of KMC Music, Inc. All rights reserved.

Takamine

ARAM BAJAKIAN

NAVIGATING NEW TERRITORY

From Lou Reed's last band to Diana Krall's quartet, this NYC guitarist always pushes boundaries—and himself.

BY ADAM PERLMUTTER

Photo by Saša Huzjak

Few guitarists cover as much territory, both stylistically and literally, as Aram Bajakian. Not long ago the Queens-based guitarist found himself copping James Hetfield riffs for the late Lou Reed, playing in Freddie Green mode with singer/pianist Diana Krall, and improvising on works by maverick composer John Zorn—all in the same week.

Bajakian is part of New York's Downtown scene, a group of improvising performers and composers such as Zorn and guitarists like Marc Ribot and Bill Frisell that emerged in the 1970s. Their music, which sometimes receives such oversimplified labels of "experimental" and "avant-garde," is in fact quite catholic, drawing inspiration from many sources, both high and low.

Bajakian has similarly wide-ranging tastes. In his formative years he was equally curious about Javanese gamelan music, Ewe drumming from Ghana, Prokofiev piano concertos, the introspective rock of My Bloody Valentine, and the blues stylings of Clarence "Gatemouth" Brown.

The blues influence is especially apparent on *there were flowers also in hell*, a trio outing with bassist Shahzad Ismaily and drummer Jerome Jennings. The record reveals Bajakian as a sardonic composer, a masterly improviser, and a purveyor of excellent tones who finds new wrinkles in one of the most traditional musical forms.

Aram Bajakian is a man of many guitars. Here he picks on a Bigsby-equipped Gretsch during an art-house show with jazz-fusion group Abraxas.

Photo by Scott Friedlander

What did you set out to do with *there were flowers also in hell*?

I wanted a record that wasn't just about having great tone and amazing songs and solos. I wanted a record that really expressed my day-to-day life in Queens. "The Kids Don't Want to Sleep" is a reflection of what it's like when you're trying to get your two-month-old to sleep at three in the morning, and there are kids outside your apartment screaming. All the songs on the record reflect some personal aspect of my life.

What was it like to work with Shahzad Ismaily and Jerome Jennings?

I wanted to work with Shahzad because I'd never played with him, and I felt he could teach me some things. He's a masterful bass player who always plays really hip-sounding things. Plus he's such a sweet guy, and that energy comes through in his playing. Jerome is also a sweetheart and plays his drums as if his life depended on it, which is similar to the approach I take. He also reminds me of Mitch Mitchell.

What was your compositional process like?

It was mostly organic. I'd come up with a riff, often referencing the blues, and then develop it on my own or with the band. "Texas Cannonball" is based on a Freddie King riff. "Orbisonian" sounds nothing like Roy Orbison, but is based on a riff I borrowed from one of his songs. "Loutone" just has this really catchy melody. Same with "Rent Party." I'm really into writing catchy melodies, and then combining them with messed-up sounds. This is probably because I love the Beatles. I wrote "Medicaid Lullaby" just sitting on my couch in five minutes. I remember joking with my wife that it came out so easily, probably because I had been singing so many lullabies to our daughter at that point. But it's also one of the most powerful compositions on the

This is Grand.

Everything you would expect from a Meister, plus everything you wouldn't!

„In sport we refer to the exceptional athletes as games changers, someone who can take their game to another level & raise the bar on the competition. The GrandMeister 36 is the game changer of amplifiers."

JOSH RAND
STONESOUR

GrandMeister 36 is an all analog tube amp as you know it. We added effects, and simply replaced all the conventional potentiometers with Smart Rotary Controls. For the first time, you can remote control every single pot and switch on your amp in realtime! Simply with a footswitch, expression pedal or even with your iPad*. It is really that simple.

Watch and Touch your Tube Tone
... from a whole new perspective.

Hughes & Kettner® TECHNOLOGY OF TONE

Hughes & Kettner is proudly distributed in the USA & Canada by Yorkville Sound.

facebook.com/hughesandkettner | www.hughesandkettner.com/TubeMeister

* iPad is a trademark of Apple Inc.

Aram Bajakian backs Lou Reed during the Bažant Pohoda festival in Slovakia in July of 2012.

record. We got into the space and created this really moving piece. Some great work comes from slaving at it, and other pieces come easily. You just have to be open and flexible, and know how and what to listen for when it's coming. It's important not to get hung up on the process.

How did you record?

I only recorded for one day for two reasons: First, I couldn't afford to hire a band and a studio for longer than that! But I also like to keep things alive and fresh. So much music now is calculated and perfect, but that's not my aesthetic. If you get into it for days and start doing multiple takes, it just sucks the life out. On the other hand, all those great Stax tracks were recorded in a few hours, and they *kill*, so I'm trying to keep with that aesthetic. I tried to keep things simple. For example, there were just three mikes on the drums and a mike on each amp, and that was it.

YOUTUBE IT

Aram Bajakian matches wits with Lou Reed on the classic "Waves of Fear."

YouTube search term: Bajakian solo Lou Reed

You make interesting use of repetition.

Yes—on "Rent Party," the way Shahzad uses the looper pedal during that solo is *insane*. These are not pretty-sounding loops, like you hear a lot of people do. He takes it out! On "For Julia," I just repeat that line again and again. It's a real minimalist approach, but it creates a beautiful place and tension.

Were there happy accidents while recording?

One thing that I love happens on "Sweet Blue Eyes." Originally I did one take of the solo, but it was bugging me, so later in the day I took one more pass at it. Afterwards Shahzad said, "Why don't we listen to both takes at the same time?" It sounded killer, and then at the end there's a point where the two parts play this great line together as if it was planned out. It's really amazing when things like that happen.

Photo by Saša Huzjak

Eastman®

HANDCRAFTED GUITARS

10TH ANNIVERSARY

2004–2014

HANDCRAFTED

GUITARS & MANDOLINS

E20OO

www.EastmanGuitars.com

ARAM BAJAKIAN'S GEAR

GUITARS

1937 Gibson L-50
Rick Kelly S-style
with Don Mare Super Sports
Rick Kelly T-style
with Don Mare Super Sports

AMPS

1964 Fender Deluxe Reverb
1967 Fender Vibro Champ

EFFECTS

Analog Man King of Tone
Blackstone Appliances
Mosfet Overdrive 2S
Boss DM-2
DOD FX90
Ramble FX Twin Bender
Tortenmann Tremolo
Tortenmann Fuzz
Union Tube & Transistor Buzz Bomb
WrightSounds Fuzz-Stang

STRINGS & PICKS

D'Addario EXL115 strings (.011–.049)

Photo by Scott Friedlander

Talk about the guitars you used.

I used my Rick Kelly Tele and Strat. Rick has a shop [in New York's West Village] on Carmine Street and has made instruments for Lou Reed, Bob Dylan, Bill Frisell, Marc Ribot, and a bunch of other well-known players. His guitars are really great and totally handmade. My Tele is made of old pine that came from the beams of Jim Jarmusch's New York loft when he had it remodeled. It has a massive [Douglas] fir neck with no truss rod that's just insanely great. The fir came from the Chelsea Hotel, so it's really a New York guitar. The whole thing vibrates and is just beautiful. I have Don Mare Super Sports in both my Strat and my Tele. Those pickups sound so good.

I also used a 1937 Gibson L-50 with a 1940s DeArmond pickup. It too sounds amazing. I picked it up for $1,000 on Craigslist a few years back—there are still some deals out there in the insane vintage market. I used the L-50 on "Medicaid Lullaby," "Japanese Love Ballad," and "For Julia." I had a [Neumann] U 67 condenser on the acoustic guitar, and at the same time intentionally bled the amped sound from an adjacent room into the mike. It's a really beautiful effect.

I've been really fortunate to work with a lot of incredibly talented people, world-class musicians. But Lou is the only person I've met whom I'd really call a genius.

What about amps?

I split my signal between my '64 blackface [Fender] Deluxe Reverb and a cranked '67 blackface Vibro Champ. Through each one I had a signal chain consisting of delay, distortion, fuzz, and a "crazy fuzz." That way I could do one take, but have a bunch of different sounds to work with. A lot of stuff that sounds like layered guitars is really just one or two separate takes, blended in different combinations.

How does this differ from your live setup?

When I gig in New York, I just bring a guitar or two, along with my Analog Man King of Tone pedal, Boss DM-2 delay, and Turbo Tuner, and plug into a house amp. It's easy to carry all this on the subway!

Tell us about playing with Lou Reed on his final two tours.

I've been really fortunate to work with a lot of incredibly talented people, world-class musicians. But Lou is the only person I've met whom I'd really call a genius. He wrote all these songs that were just on another level. They're so simple—some have just two or three chords. But there's a spirit and energy behind them, a realness that comes from life experiences, and that's what makes them great. And in truth, it was really difficult to play some of those songs, like "Sad Song" or "Junior Dad," night after night. Lou also

"Whatever music you think sucks is probably the music you should check out, and the music that will teach you the most if you explore it a bit," says Aram Bajakian.

had an incredible attention to detail. For the last show we did together, at Royal Festival Hall in London, we spent hours on our soundcheck working on only one song, getting all of the components just right. At the same time, he always kept things spontaneous. At one show he pointed at me out of the blue to do a solo, and there was this great energy in that moment. The next night he tried to do the same thing, but he knew it was a different energy, so we didn't end up doing the solo. He was very attuned to that—you always had to be aware and "on."

What was it like to shift gears and play with Diana Krall?

It was pretty drastic. In a short time I went from playing Metallica riffs and Velvet Underground songs with Lou to playing 1920s standards with Diana Krall to playing John Zorn's Masada pieces with Abraxas at the Jazz in Marciac Festival, and then back to playing with Lou a few days later. That was pretty insane. But playing with Diana was a real fun time. She works in an old-school way, like Nat King Cole. It's not fancy or flashy, but really about nuance and phrasing. Her chord voicings and feel are just so elegant—very deep. It was a real lesson getting to play with her and the rhythm section of Dennis Crouch on bass and Jay Bellerose on drums every night.

Have you consciously developed a personal approach to guitar, or has it come about naturally by playing so many different types of music?

In a lot of ways I've always sounded like I sound. In fact, I heard something from the band that I had in seventh grade, and my solo sounds a lot like I do now. But I'm always trying to push myself in terms of what I listen to, and I've found that all great artists do that. By listening to all this different music, it somehow filters into what I play. If you don't like hip-hop, dig into hip-hop. If you don't like metal, dig into some metal. Whatever music you think sucks is probably the music you should check out, and the music that will teach you the most if you explore it a bit.

I'm always thinking about how I can approach things differently. There are a million guitar players who could tear me in two on a technical level, but I think my strength is interesting and creative ideas. Also, I always put my whole heart into playing, whether it's a songwriter gig at a small Lower East Side bar, or on some big stage somewhere. The music deserves that respect, no matter the venue.

What's next for you?

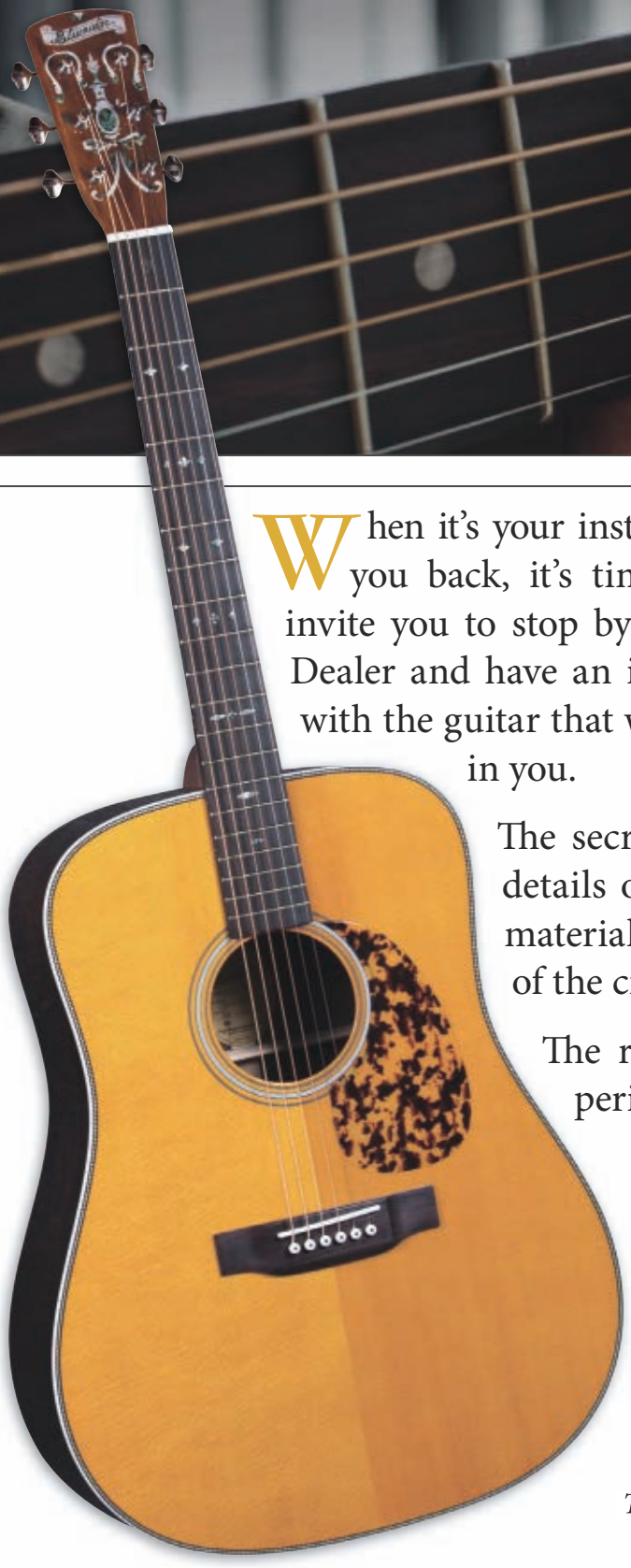
My next record, out in mid-September, is with a band I have with my wife, Julia, called dálava. Her great-grandfather, Vladimír Úlehla, was an early-20th-century ethnomusicologist in what is now the Czech Republic. He transcribed all these folk songs and wrote a book of them, but because it's in Czech, not a lot of people know about it. So we started arranging the songs, which are all so magical. It's a completely different thing than *there were flowers also in hell.* It's pushing me in a new direction, which is something I'm always trying to do. It's in that space where you're just slightly uncomfortable that the greatest music happens.

Blueridge Guitars...More *Bang* for the Buck!

When it's your instrument that's holding you back, it's time for a change. We invite you to stop by your local Blueridge Dealer and have an intimate conversation with the guitar that will bring out the best in you.

The secret of tone lies in the details of design, selection of materials and the skilled hand of the craftsman.

The result is more *bang*... period!



BR-160 Dreadnaught

To learn more about Saga's Blueridge Guitars, visit ***www.sagamusic.com/PG***

Blueridge

The Quality and Value Leader!

Blueridge BR-160 Guitar

- Select, aged, solid Sitka spruce top with traditional herringbone purfling for tone and beauty
- Expertly handcarved top braces in authentic, pre-war, forward-X position
- Select, solid East Indian rosewood back and sides for deep, rich tone
- Carved, low profile, solid mahogany neck and dovetail neck joint for strength and stability

Saga Music

Saga Musical Instruments
P.O. Box 2841 • So. San Francisco, California
Connect with us on

On Beyond Analog!

BY JOE GORE

On Beyond Zebra! was never one of Dr. Seuss's bestsellers, but it was my childhood fave. I loved its premise that the alphabet could extend past the letter Z, and that only our lack of imagination confines us to the usual 26 characters. Sure, we need A, B, and C to communicate, but we can dream in Yuzz, Fuddle, and Zatz.

I flashed on that kindergarten Gnosticism decades later when I started learning about digital audio. Once you get an inkling of its power, you start wondering whether many aspects of traditional analog tone are popular because they're great, or because they're traditional.

Both, obviously. I'm simply suggesting that it's good to question our analog assumptions. Take tubes and distortion, for example.

Are Tubes for Rubes?

No—it's just a rhyme, silly! Tubes are awesome. But guitarists of my generation were reared on tube dogma. As a young guitarist I was told over and over that only tube distortion mattered. Sometimes it was expressed in emotional terms. ("Nothing else has that feeling.") Sometimes it was aesthetic. ("Only tubes sound warm and musical.") Sometimes it was quasi-scientific. ("Only tubes produce desirable even-order harmonics.")

The attitude was so prevalent that manufacturers would often employ tubes in stompboxes in ways that had no audible effect, successfully duping many tubaholic guitarists. (Electro-Harmonix even went so far as to add a purely cosmetic LED to some pedals, oriented to shine up through the glass bottle to reassure players that their "tube tone" was smokin' hot.)

That ironclad attitude eventually softened a bit after being challenged on two fronts. On the tech side, tube emulations improved to the point that most listeners—and frankly, most guitarists—can't tell the difference, at least on recordings. Meanwhile, extreme and experimental music genres challenged old ideas of "good" distortion. Just when tubes were no longer the only way to get "that sound," a significant number of musicians stopped giving a crap about "that sound" in the first place.

Now, I don't want to get sidetracked into another anarchic amps-versus-models debate, but given that—oh, hell, who am I kidding? I'm *always* up for an anarchic debate! **Examples 1a through 1h** are recordings I made of classic amps alongside modeled versions from the Amp Designer plug-in in Apple's Logic Pro. Can you tell which are which? (If you're reading this in print, check out the online version, which has embedded audio clips.)

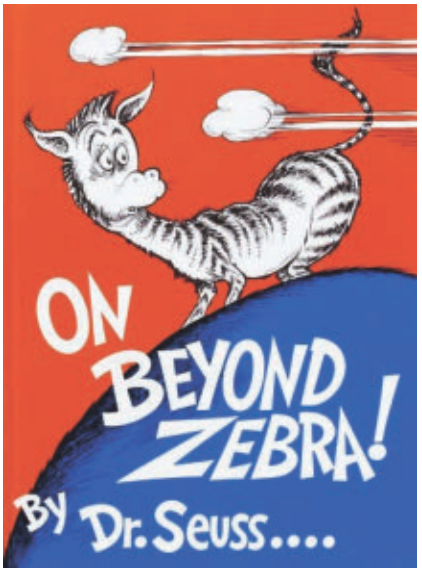
I posted a version of this test on my blog a few years ago as a contest. Hundreds of players competed, but only three nailed the answers, and some did so using a trick of sorts. (If you listen to the tail end of each clip on headphones, you can sometimes hear amp noise as the last notes fade away.)

Yeah, there is a difference, and I don't doubt that a small percentage of listeners can discern it. But on the "Things That Matter" list, it's somewhere around #97. So let's proceed on the assumption that the recording guitarist can use amps or models to equally fine effect, shall we?

Not Found in Nature

The conversation gets more interesting when you ditch comparisons and explore the ways uniquely digital sounds can contribute to a recording. I threw together a musical example, using drum tracks swiped from my frequent musical partner Dawn Richardson. There are five guitar parts: a doubled riff in the A section, a thin-sounding counterpoint line, and a more distorted doubled riff in the B section. Plus bass.

I simultaneously recorded directly and via miked amps. I made "obvious" amp choices: For the first doubled part, I cranked a vintage Fender Tremolux to mild distortion, but employed a chunky Marshall combo for the B section



Dr. Seuss got it right in 1955: "If you stay home with Zebra, you're stuck in a rut. But on beyond Zebra, you're anything but."

Like sulphuric acid, digital distortion eats through almost anything, so it can be a great choice for dense passages of aggressive music.

riffs. For the high, thin part, I ran a homemade octave fuzz through a small Divided by 13 combo. **Ex. 2a** is the band track. **Ex. 2b** is the guitars alone, and **Ex. 2c** is rhythm section alone. (Pardon my lazy-ass rough mixes.)

There's nothing offensive about the guitar sounds in **Ex. 2a**—and that's the problem! They're generic. Yeah, I could make them pop more via EQ, compression, and micro-edits, but we'd probably still be nodding off.

Sometimes it's good while recording to step back and consider what the parts are *trying* to do. Here's the musical scene as it existed in my imagination: Dark-toned guitars create a sense of foreboding. A

iZotope's Trash 2 plug-in provides access to all those distortion colors that electric guitarists are supposed to hate.

weird, tweaky line buzzes past like an alien mosquito, distracting our attention till we're blindsided by violent power-chord guitars.

How could I better depict that scene? What if the dark guitars were darker? The weird, tweaky part weirder and tweakier? The violent guitars *way* more violent? So I muted the amped guitars and applied digital paint to the direct-recorded tracks.

What's different in **Ex. 3a**? The first pair of guitars is processed through a digital filter plug-in (PSP's N2O), with a touch of bitchrushed distortion and mismatched cutoff frequencies and modulation rates to differentiate the parts and emphasize the stereo effect. Highs are greatly reduced, and booming, midrange resonance contrasts the thin-toned countermelody, which has heavier filtering, trashy slapback delay, and a touch of digital glitching. For the B section I used two flavors of bit-crushed digital distortion (from BitBrain, a distortion effect created in Native Instruments' Reaktor, and Logic's Bitcrusher plug-in). All are sounds guaranteed to nauseate tube purists. **Ex. 3b** features the guitars only, and **Ex. 3c** reveals what the raw, direct-recorded guitars sound like with no digital processing. Ouch.

I'm not claiming my approach here is the best one, or even a *good* one. But to my ear, the sounds "not found in nature" (that is, not available from traditional analog signal chains) make the stronger impression. For the record, I can easily imagine the situation reversed, and replacing bland modeled sounds with fat and lively analog ones. As always, context determines the best tones.

Digital Distortions

Let's return to the digital distortion on those B section guitars. Many players don't realize that classic rock distortion sounds filter out much high end. Guitar amps and speakers decapitate most frequencies above 4 kHz or so, and the damping effect increases as you overdrive the amp. But when you apply distortion to those unfiltered treble frequencies, the result can be pure excitement, god-awful noise, or both. Like sulphuric acid, digital distortion eats through almost anything, so it can be a great choice for dense passages of aggressive music.

With 12 multiband clipping algorithms, extensive modulation options, and a randomizing chaos engine, Sinevibes' Circuit plug-in can make one hell of a racket.

Let's conclude with a digital distortion tasting platter, highlighting a few on-beyond-analog options.

I did the processing with some favorite "distortion designer" plug-ins: iZotope's Trash 2 (**Ex. 4a**), u-he's Runciter (**Ex. 4b**), Sinevibes' Circuit (**Ex. 4c**), and FXpansion's Maul (**Ex. 4d**). Each can generate many shades of distortion, mimicking not just amps, but overdriven transistors, diodes, filters, and much more. Each plug-in has a large repertoire of tones, so don't rule one out just because you hate the way I've used it here. Any or all of them can expand your distortion palette.

The good doctor gets the last word:

So on beyond Zebra!
Explore! Like Columbus!
Discover new letters!
Like WUM is for Wumbus …
So on beyond Z! It's high time you were shown
That you really don't *know all there is to be known.*

JOE GORE *has recorded and performed with Tom Waits, PJ Harvey, Tracy Chapman, Courtney Love, Marianne Faithfull, Les Claypool, Flea, DJ Shadow, John Cale, and many other artists. Joe has written thousands of articles about music and helps develop music tools for Apple and other clients. He blogs at tonefiend.com.*

Fulltone®
the finest guitar & bass effects since 1993.

Independent Clean Boost Channel
with Germanium Limiter

JRC4558D Chip

3-way selectable Clipping:
* 90's
* Wide Asymmetrical
* Comp-Cut

$179

www.fulltone.com

Photo by Chris Carlone

SHARKMUFFIN

With current EP 1097 generating plenty of buzz and a full-length debut on the way, heavy-hitting trio Sharkmuffin looks ready to swim with alt-rock's big fish.

BY EMILE MENASCHÉ

Sharkmuffin's press posse describes the trio as "badass riot grrl." And there's no question that the sonic storm generated by Tarra Thiessen (guitar, lead vocals, theremin, keyboards), Natalie Kirch (bass, vocals), and Janet LaBelle (drums) slams through the speakers with enough punk intensity and sharpened hooks to draw favorable comparisons with the Yeah Yeah Yeahs, Hole, Bikini Kill, and the Breeders—trailblazing alt-rock bands with strong female leads.

But listen to the four songs on the band's latest EP, *1097*, and it doesn't take long to hear that there's more than bad-assitude behind Sharkmuffin's crunching riffs, thundering drums, and punk-simple bass lines. The band's kick-to-the-stones ferocity amplifies solid songwriting, while Thiessen's noise-rock fretboard assaults are balanced by nuanced technique. Amidst the noise, there's plenty of cleverly applied tones and expressive dynamics.

A few weeks before a trip to Los Angeles to put the finishing touches on Sharkmuffin's full-length debut album, Thiessen checked in from Brooklyn and explained how noise rock can coexist with the study of music theory, an appreciation for Van Halen, and a love of Pink Floyd—and why neither "riot" nor "grrl" tell the whole story.

How would you describe Sharkmuffin's sound?
I guess like "psych-punk-surf?" I don't know! It's like you just start stringing so many words together that you need to think of new words for it. I really like Ty Segall and Thee Oh Sees—they're garage bands from San Francisco that have that "blown-out speaker" sound with catchy riffs and catchy melodies. But you can't really hear the words they're saying all that well because they're so distorted. I wanted the sound to be less distorted so you can hear what I'm saying, while still being noisy.

Was that always your musical goal?
That's a more recent thing, I think, from the last couple years of what Sharkmuffin turned into. I listen to my stuff from a couple years ago and it's more classic rock "jammy" college stuff. I met Natalie the summer after I graduated college and she didn't really know how to play yet. But that was fine because I wanted to be in a punk band. I like her style because she hasn't been playing that long, so it's more basic, which is easier to follow and write stuff on top of. And it's more fun too.

Our sound and approach have changed as we've developed as a band. Our original drummer left and Janet LaBelle joined us in October. She's out with an arm injury but we're hoping she can finish the album with us when we go to L.A. in July. Patty Schemel from Hole stepped in and recorded with us in February.

Do you and Natalie write together?
For our first EP, *She-Gods of Champagne Valley*, the songs were written in my previous two bands and Natalie just learned those. On the new EP and album, we've done more jamming and writing together. "Soft Landing" came out of a bass line that Natalie wrote. We jammed a lot of the songs on the new album at her family's beach house in New Jersey, which was destroyed by Hurricane Sandy. We named the EP *1097* after it [that was the beach house's address].

When did you start playing guitar?
My stepdad was a bass collector. He had

While recording Sharkmuffin's latest EP, 1097, at Audio Parlour in Brooklyn with engineer Kevin Andreas, Tarra Thiessen played a Fender Jaguar HH through her 1966 Fender Pro Reverb.

YOUTUBE IT

This extended video features all four tracks from Sharkmuffin's current EP, 1097. Check out the expressive surf-guitar solo outro starting at 1:21 and lasting until the end of the first track, "Foul Play."
YouTube search term: Sharkmuffin – 1097 (Official video)

Photo by Jaime Schultz

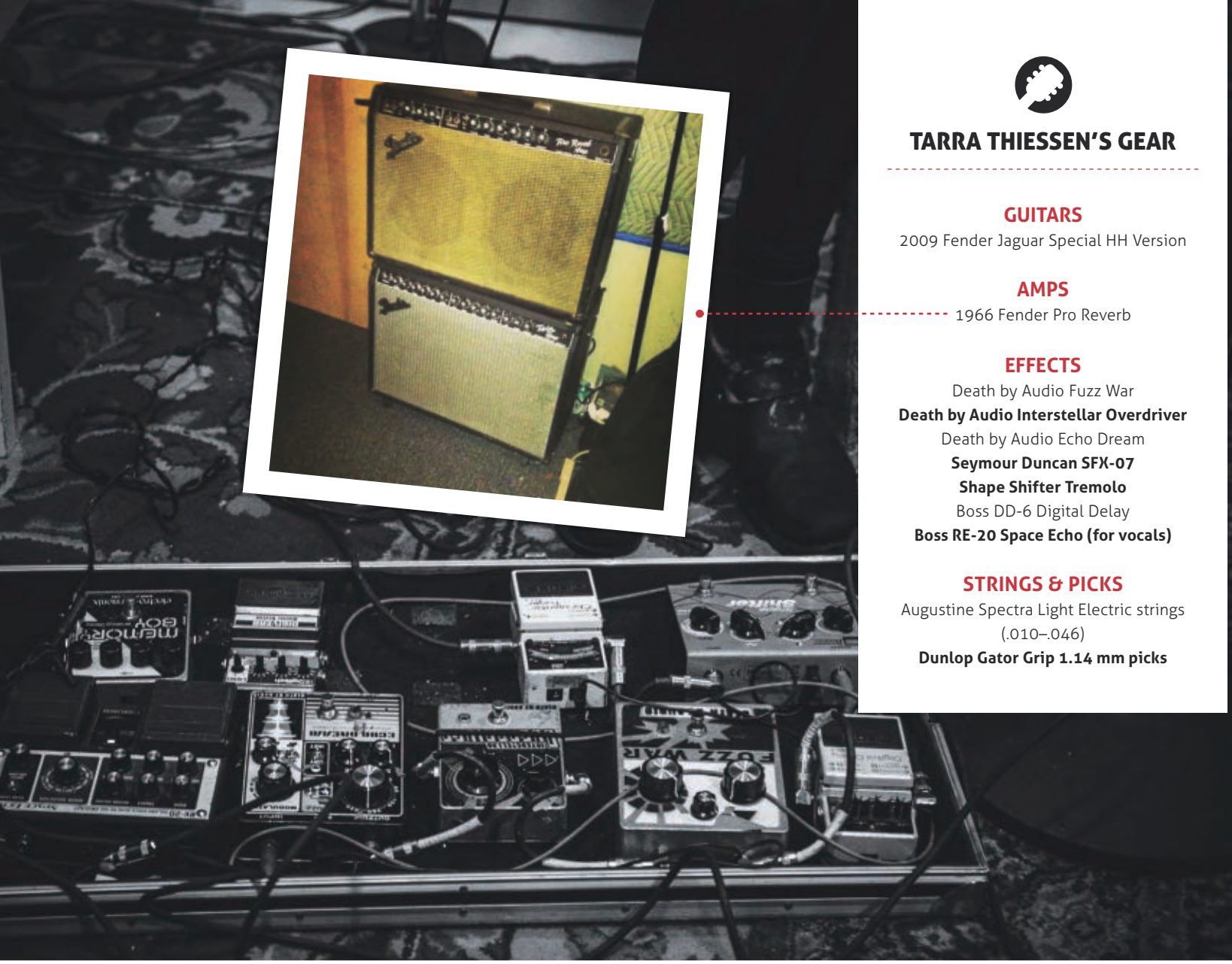
ODDITIES AND RARITIES

MOJO TONE

»» PICKUPS ««

MOJOTONE.COM 910.259.7291

NEVER BEFORE SEEN IN ONE COLLECTION, A CONGRESS OF RARE & UNUSUAL SPECIMENS. FROM CLEAN TO MEAN...COLLECT THEM ALL!



TARRA THIESSEN'S GEAR

GUITARS
2009 Fender Jaguar Special HH Version

AMPS
1966 Fender Pro Reverb

EFFECTS
Death by Audio Fuzz War
Death by Audio Interstellar Overdriver
Death by Audio Echo Dream
Seymour Duncan SFX-07
Shape Shifter Tremolo
Boss DD-6 Digital Delay
Boss RE-20 Space Echo (for vocals)

STRINGS & PICKS
Augustine Spectra Light Electric strings (.010–.046)
Dunlop Gator Grip 1.14 mm picks

Thiessen gets her noise fix from Death by Audio pedals.

about 30 different basses that I sort of jammed on when I was younger. I think it was Jack White who made me really want to start playing the guitar, after I heard "Fell in Love with a Girl." I was in high school, so I just learned a bunch of Led Zeppelin, Pink Floyd—I like David Gilmour—and stuff like that.

WHEN I DON'T HAVE A BOYFRIEND, I ALWAYS SLEEP NEXT TO MY GUITAR, SO IT'S ALWAYS THERE.

Classic rock? That might surprise some of your listeners….
I'm more into noisy stuff now. I have lots of pedals and I like everything to be really loud. I really like surf rock. In high school, this one Ventures CD was stuck in my car stereo, so I listened only to them for a whole summer: The Ventures and Dick Dale. I love the Velvet Underground sound, too. I listened to Side B of *Velvet Underground & Nico* every day for a couple of months in college. I also really like [German experimental rock band] Can. I like their guitar parts. Then there's this band called the Mallard—they were kind of more post-punk, noisy, with this girl guitar player that I thought was pretty sweet, Greer McGettrick.

How long have you been writing songs?
I tried writing songs when I first started playing guitar in middle school, but I could never get myself to finish them. I always had really bad anxiety about finishing songs until I was about 19 and I started singing—then I started writing and finishing them. But I've had a journal since I was 11 and have always written

Above: Photo by Jaime Schultz **Inset:** Photo by Deanna Wallach

Manuel Rodríguez Guitars

For over *100* years, three generations of Rodríguez master luthiers have brought their storied family history and instrument-making expertise into every guitar they build.

For rich, multi-layered tone and stunning looks, hand selected premium woods are used throughout each instrument and topped with hand-inlaid, multi-wood rosettes and binding. Gorgeous accents and exquisite marquetry are matched with premium hardware and traditional, hand-built Spanish Heel construction, creating instruments that capture the sound only old-world craftsmanship can produce.

Rodríguez classical guitars are available at these select preferred retailers.

Guitar Center
ALL WE SELL IS THE GREATEST FEELING ON EARTH

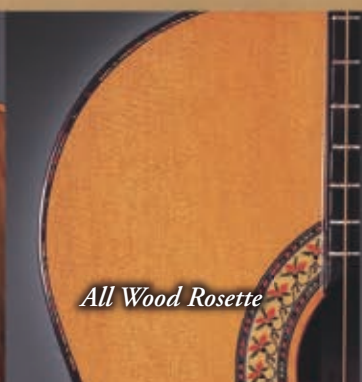
Musician's Friend

©2014 Manuel Rodriguez Guitars

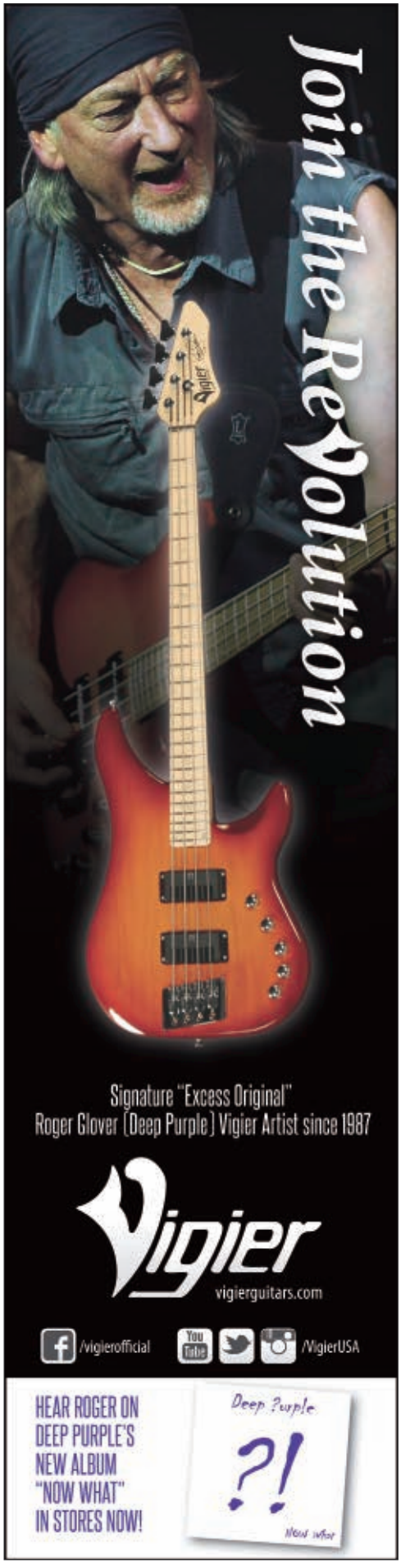
Hand-Inlaid Binding

Traditional Construction

Premium Tonewoods


All Wood Rosette

Premium Hardware



Sharkmuffin frontwoman Tarra Thiessen says she likes the punk feel of writing fun guitar parts over Natalie Kirch's stripped-down bass lines.

Photo by Jim Appio

things down, sort of as a release. I was always depressed when I wasn't writing.

Interesting that you're drawing from something as personal as a journal and then cranking it up to be loud and in your face.
There's a lot of rage—controlled rage—in it. I guess it's my ex-boyfriends pissing me off [*laughs*]. I'm really into storytelling. A song like "Mermaid Sex Slave" [from *She-Gods of Champagne Valley*] is kind of mythical and a bit jokey—just a stupid story that I made up. It's more interesting to take my actual autobiographical experiences and make those into stories and songs.

Is there an essential piece of gear in your arsenal?
I use lots of Death By Audio pedals. During college, I had this band and the bass player lived in the loft behind Death By Audio [in Brooklyn, New York], and they built all the pedals there. So that's how I first started playing with them—being in my practice space alone and playing around with the pedals. I've become friends with the guys who make them.

Do you work out parts and sounds ahead of time?
It depends on the song. On "Ten Ten," that noise thing was such a spur of the moment idea. I asked Natalie what time it was, and she just screamed "10:10!" And our drummer just did this hardcore beat. It was a joke, an in-the-moment kind of thing. We ended up turning it into something because we thought it was so funny. I also played a theremin on that—I have a bunch of guitar pedals that I don't use in my setup, so I use my theremin with them.

Other songs, like "Foul Play," are more controlled. If you see me play live, I have three different pedals that I use to control dynamics. I don't really know where that comes from. I guess for different parts I want to be louder and more in your face, as opposed to other parts where you just want to communicate your words.

How did you approach the production of *1097*?
We recorded at Audio Parlour in Bushwick [Brooklyn] with Kevin Andreas, and tracked the bass and drums to 2" tape, which sounded great. I played my Fender Jaguar HH through my 1966 Fender Pro Reverb. "Quarter Machine" and "Soft Landing" were pretty basic—mainly just the Jaguar through my Death By Audio Interstellar Overdriver and the Pro Reverb. "Ten Ten" has three different guitar tracks laid over each other, where I was just sort of improvising along with two theremin tracks.

Do you play any other instruments?
I play bass and I can sort of play keyboard. I have a Bachelor's of Music degree in Music Business [from NYU]. I took four years of music theory, oral comprehension, and music history, so I know a lot of boring classical stuff—and some really interesting classical stuff, too. We also had to take recording classes and there was an option to take lessons, so I did voice lessons and guitar lessons towards the end.

Do you have a set writing or practice regimen?
I definitely try to write a song every day, or try to work out parts for songs. I have to go through a lot of crappy ideas to get to the decent ones. Last winter, I learned a lot of Van Halen solos—so I go through phases where I want to learn new licks and try different stuff because I get bored with my soloing. When I don't have a boyfriend, I always sleep next to my guitar, so it's always there.

Sharkmuffin is often compared to "riot grrl" bands. Do you think those gender labels are still relevant for rock musicians?
It seems like the only difference in being a female is that we always need to specify that we're female—that's the only problem. It's kind of annoying, because I'll never be on a "Best Guitar Players" list ... I'll be on a "Best Female Guitar Players" list. Women have been playing rock music for a long time now, so it really shouldn't have to be differentiated anymore: It's not new.

Demystifying Truss-Rod Tools

STORY AND PHOTOS BY JOHN LEVAN

Do you ever get frustrated trying to find the correct wrench or hex key to adjust your guitar's truss rod? Well, you're not alone! I have at least 20 different wrenches and hex keys dedicated to adjusting guitar necks (**Photo 1**), but I still run across that *one guitar* that requires a tool I don't have. There are so many different tools designed for adjusting truss rods that it's nearly impossible to have them all.

Many manufacturers include a truss rod tool when you buy one of their guitars. However, not all do, so you may need to purchase the appropriate tool. This is also true if you buy a used guitar missing its original tool. Sometimes you can buy the correct tool at a home improvement store, but often you need to acquire it directly from the manufacturer, or from a luthier supply shop like Allparts Music, Stewart-MacDonald, Luthiers Mercantile, or the Luthier Tools page on the Martin Guitar website.

But before you go hunting, take a moment to acquaint yourself with some possible tools and how they're used. Your truss rod's nut type determines the tool you'll need. It may be a hex key, nut driver, screwdriver, box wrench, or miniature screwdriver. Let's look at each category.

Hex key. Some manufacturers, including Larrivée and Collings, use a long, bent hex key to adjust the truss rod. These builders don't drill a hole through the cross strut brace (glued under the top between the soundhole and neck block), and the curved key lets you reach around the brace to engage the truss rod located in the neck block (**Photo 2**).

Other brands, such as Martin and Ovation, use a long hex key bent at a 90-degree angle. Takamine, Alvarez, Hamer, and modern Fenders use short 90-degree hex keys. The access point for some of these guitars is located inside the soundhole, while others adjust at the headstock. Like Martin, Takamine drills a small hole through the cross strut brace to provide soundhole access to the truss rod nut using a right-angle tool. The size of the hex key varies from brand to brand, with some as small as 1/8" and others as big as 5 mm.

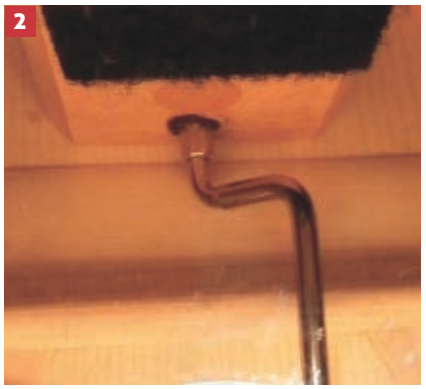
1

Some instruments, including certain G'Zan models, have a side adjustment nut (**Photo 3**). This allows you to adjust the truss rod nut from the treble side of the heel—very convenient!

Remember, the guitar may need either a standard or a metric hex key, so check with the manufacturer to determine the right size. A snug fit is important for complete control over the amount of force needed to make an adjustment.

Nut driver. Taylor, Gibson, and Santa Cruz require a nut driver to adjust the truss rod on most of their guitars. These drivers measure from 1/4" to 5/16", and the access point is usually at the headstock (**Photo 4**).

Occasionally I run into an older acoustic that uses a nut driver, but with the access point inside the soundhole and the nut flush to the neck block. That's when things can get interesting. You have to remove or loosen the strings before adjusting the truss rod. This can be difficult if the cross strut brace is in the way. You have to hold the nut driver at an angle or find a small box wrench (see below) that fits the nut.


2

Box wrench. This is basically a thin-walled, deep-well socket attached to a thin metal rod at a 90-degree angle. I've used this type of wrench on many different brands, including Rickenbacker, Charvel, Kramer, and Guild. Box wrenches come in both standard and metric, and can range in size from 1/4" to 8 mm.

Box wrenches and nut drivers can be interchangeable for adjusting a truss rod. A box wrench can fit in places where a typical nut driver won't. Sometimes it's

3

easier to use a box wrench instead of a nut driver, depending on the pitch or angle of the headstock, assuming the access point is at the headstock. But that's not always the case: For example, to adjust the truss rod on a Baby Taylor, you have to access it through the soundhole. For this, Taylor provides a long box wrench.

Screwdriver. Most vintage and vintage reissue electric guitars with bolt-on necks require either a flathead or a Phillips head screwdriver to adjust the truss rod. To safely adjust the neck, you have to unbolt it from the body (**Photo 5**). Some people try to adjust this type of neck by simply loosening it and not removing it completely from the body, but this isn't advisable because the potential for damaging the pickguard or neck pickup is too great.

Always remember to loosen the strings before you remove the neck bolts, otherwise tension from the strings can bend the bolts. Make sure you use the correct size of screwdriver to avoid damaging the nut by rounding it slots.

With this old-school design, the adjustment process is pretty much trial and error. After you adjust the truss rod, you need to bolt the neck back on, retune, and measure the neck relief. Despite having done this thousands of times, I often have to repeat the process again and again to get the relief just right. Be patient.

Miniature screwdriver. Some guitars have a "spoke wheel" truss rod nut (**Photo 6**). I've seen these on Music Man, Sadowsky, and Esoterik guitars. It's a brilliant idea that makes it very easy to adjust a truss rod. Simply insert a small metal rod or a miniature screwdriver into one of the exposed holes and rotate the wheel right to tighten or left to loosen.

Once you're equipped with the right tool, you'll be ready to adjust the neck for optimum relief. For details on this procedure, read my January 2013 column "Time for a Neck Adjustment?" at premierguitar.com.

4

5

6

JOHN LEVAN *has written five guitar repair books, all published by Mel Bay. His bestseller, Guitar Care, Setup & Maintenance, is a detailed guide with a forward by Bob Taylor. LeVan welcomes questions about his PG column or books. Drop an email to guitarservices@aol.com.*

ARCHON

The Archon was designed to leave you with just the essentials for killer tone. Five gain stages deliver a full and lush distortion while the clean channel's ample headroom is a perfect platform for pedals. The Archon is a powerful, imposing and articulate amplifier that caters to the needs of any player.

100/50W (Switchable)
2 Channels
6L6GC Tubes

Emil Werstler - Chimaira
Zach Myers - Shinedown
Dustie Waring - Between the Buried and Me
Mark Tremonti - Alter Bridge

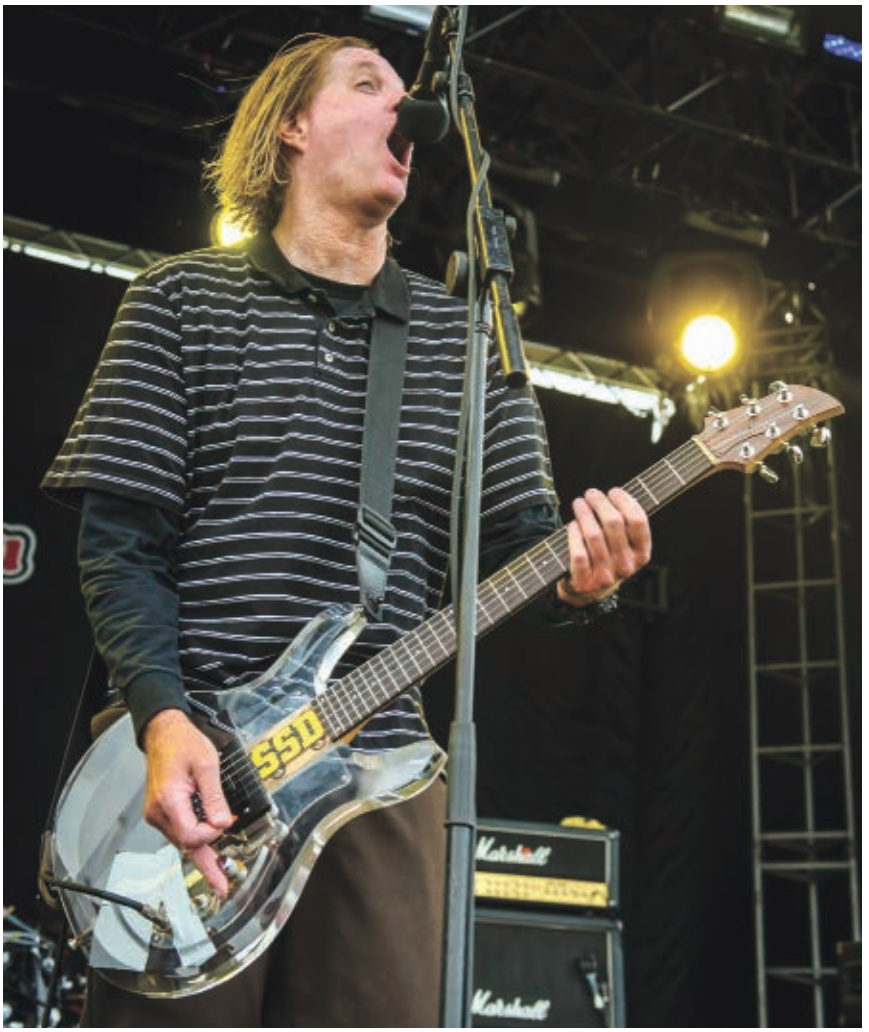
PRS PAUL REED SMITH GUITARS

© 2014 PRS Guitars / Photos by Marc Quigley

FU-ZZALICIOUS

Fu Manchu's stoner-rock torchbearers Scott Hill, Bob Balch, and Brad Davis go big on *Gigantoid*.

BY BRIAN FOX



Shown here with his No. 1 axe, an Ampeg Dan Armstrong Plexi guitar, Fu Manchu frontman Scott Hill says his tone has been the same since the early '90s. He uses a Univox Super Fuzz and Crown W-Fuzz pedals through various Marshall amp heads.

Borne out of the same sunbaked SoCal soil that spawned stoner rock and doom metal mainstays like Kyuss and Goatsnake, Fu Manchu has been fighting the good fight for crushing riffs and Sabbath-esque grooves since before it was hip. On* Gigantoid*, the band's first studio effort since 2009's* Signs of Infinite Power*, singer/guitarist Scott Hill, guitarist Bob Balch, bassist Brad Davis, and drummer Scott Reeder prove that the fire burns as bright as it ever did in the band's proto-grunge adolescence. Balch's cascading fuzz effects form the perfect foil for Hill and Davis' "plug in, turn up, rock out" ethos. On a short break between North American and European tour dates, they took time to talk to us about how they craft their larger-than-life tones.

How did the songs come together for *Gigantoid*?
Scott Hill: Kinda like how we've been doing it for the last 25 years: show up to practice, play a riff, show our drummer. Usually we record everything we do on a 4-track cassette machine. We'll put one microphone in the middle of all of us—pointing down. That seems to capture everything really well. We've been doing that for 20 years on the same recorder.
Bob Balch: We'll work on arrangements and add little twists and breaks. We won't really hear the lyrics until we go in to record. We might each have some ideas, but usually Scott has it down. He's been doing it for so long, and we all trust each other.

This is the first new album in a number of years, but you guys stayed busy on the road.
Hill: After we did *Signs of Infinite Power*, our manager said, "Hey, next year is the 15th anniversary of *In Search Of…*. The record label will reissue it on vinyl if you want to do that." We did a tour where we played the whole record live—we'd never done that before. The next year was the 15th anniversary of *The Action Is Go*, so we toured and played that one, as well. Last year we finally decided to write a new record.

When you revisited those two albums for the tours, did you rediscover any deep cuts that shed light on what you did in your earlier years?
Hill: On *In Search Of…* there's a song called "The Bargain" that we'd never played live. It wasn't one of my favorite songs on that record, so I was like, "Oh crap, I better learn how it goes!" It was like a new song to me, and I came to like it. There were maybe two songs from *The Action Is Go* that we'd never played live. And they were fun to play—I don't know why we'd never played them in the past 15 years.

How do you two work together to find complementary guitar tones?
Hill: I've pretty much had the same guitar tone since '93 or '94. I use a Univox Super Fuzz and Crown W-Fuzz pedals, and those are basically the same tone. Usually our fuzz tones are so over-the-top and noisy that they just fit together. Mine has a little more high end, and his is more full-bodied.

What's the biggest challenge for you guys in the studio?
Balch: For me, it's tripping out on guitar tones, trying to get sounds that we dig. We made an effort on this record to make it as fuzzy as possible. Usually I go into the studio, plug in, and go, "Sure, that sounds good." But it's been since 2009 since we had a new record out, so this time, I really wanted to dig in. I wanted people to go, "Whoa, that's insanely fuzzy," because that's what our fans dig. I used two fuzz pedals at once. One has an

Photo by Chris Schwegler/atlasicons.com

EXPERIENCE THE
ALL-NEW BOUTIQUE SERIES
PICKUPS
Griller
Aluma Man
Aluma Captain
Visionary
Steampunk
T-Plus
Lace Sensors
35 YEARS
LACE PICKUPS
WWW.LACEMUSIC.COM

PLAY LONGER
PLAY LOUDER
PLAY HARDER
www.bourns.com/proaudio
BOURNS
PRO AUDIO

Get the Vintage Vibe™
Retro-Sonic
DISTORTION
PHASER
www.retro-sonic.com

BASS-MAN BRAD DAVIS ON HIS FUZZY BOTTOM

Since joining Fu Manchu in 1995—replacing original bassist Mark Abshire—Brad Davis has made subtle tweaks in the tone department, preferring the sound of his trusty P-style G&L basses cranked through an Ampeg SVT. Davis' bass tone is fuzzier than a laundered woolen poncho, but despite his considerable skills as the principal pedal builder at Creepy Fingers, Davis ditches stompboxes in favor of the natural overdrive that can only come from vintage glass.

What goes into your bass tone?
For all the Fu Manchu records, it's been fairly consistent. On this record, I used two basses: my 1992 G&L SB-1—the first bass that I purchased to play with the band—and my custom 2007 G&L SB-2, which was built to feel more like the original SB-1 but with a wider neck. Between those two basses, I could get all the basic tones I wanted. For amplifiers, I used the same 1969 Ampeg SVT that I've used on all the records. For tracking, I like using an 8x10 cabinet with speakers that aren't completely worn down, so I can have clarity when I need it.

Do you have particular go-to settings for the head?
It's pretty middle-of-the-road. I don't use any of the "deep" or "bright" switches, and everything is usually set to around 7. I'll set the midrange according to the room—if I need to cut through, I'll set [the frequency center] a bit higher, but it's generally in the middle setting.

With two fuzzy, down-tuned guitars, does the Fu Manchu sonic environment pose any challenges?
I don't need to use a graphic EQ to notch particular frequencies out. My tone is fairly dirty, but it's all natural amp distortion. On bass, pedals automatically knock out some of the low end, so I prefer the natural overdrive I get from an amp. The G&L pickups are pretty high-output, but they're passive, so they don't sound muddy. I prefer high-output passive pickups, because they help to drive the amp.

The bass sound for the whole album is just the amp and whichever bass I was playing. With that amp, once you set the volume around 6, that overdriven tone is the sound that naturally comes out of it.

Like Bob and Scott, you tune down a full step. Which strings do you prefer for that?
DR Strings Lo-Riders, .050–.110. When tuning down, I want to retain tension—but if the string is too heavy it gives too pure a tone for me. With medium-light tension, I feel I can get a richer tone.

Do you prefer playing with a pick or your fingers?
It depends. On [1999's] *Eatin' Dust* and [2000's] *King of the Road*, for example, it was almost all fingerstyle. *The Action Is Go* [1997] was almost all played with a pick. On the new record, I let the song decide—it usually comes down to tempo. I want to be able to accent certain parts on faster tunes, and if I'm playing a slow song, I want to use fingers to get that extra low end. Sometimes I'll record a song playing with a pick, but find it's more fun to play live with my fingers.

Tell us about things at Creepy Fingers.
Things are good. I generally split my time between production pedals—like the Creepy Face, the Fuzzbud, and the Pink Elephant—and custom work, which is the more creative side of pedal building.

How did you get into building pedals?
I was always obsessed with pedals, even before I was in Fu Manchu. I started by buying a lot of pedals—especially when eBay was first around—but it was getting to be a bit much. Like a lot of people, I got into BYOC [buildyourownclone.com].

I'd built a theramin from a kit for a few of our albums, and I thought,

"Well, that went pretty well." So I thought I'd try a few pedals. It quickly went from not being able to stop buying pedals to not being able to stop making them. It was fun to pursue the sounds I wanted instead of just buying equipment to find out if it fits my sound. I started making some pedals for friends, and then word got around.

What's most important when it comes to building and tweaking pedals?
You have to have a decent ear. My understanding of the circuits themselves is limited, but I learn more every day. But without knowing what you want, it's far more difficult. Personally, I like using vintage components, although I don't think that's a make-or-break kind of thing.

Which pedal builders do you admire in particular?
There are a lot of builders out there that have a common bond, in terms of trying to build vintage-style circuits, taking an old-school approach. David Main of Differential Audio Manifestationz is one. John Lyons from Basic Audio is another. Jerms—Jim Roth from Built to Spill—also makes a lot of nice handmade pedals.

Aside from Fu Manchu and Creepy Fingers, what else do you have coming up?
I'm headed into the studio with [Clutch frontman] Neil Fallon and [former Sabbath drummer] Vinny Appice. It's an old-school metal kind of thing.

Photo by JJ Koczan

external bias control, so I would crank that one, and use the second fuzz pedal as a noise gate.

How does that work?
Balch: Brad has a pedal company, Creepy Fingers, and he makes a pedal called the Creepy Face, which is loosely based on a '60s Fuzz Face. That one has an internal bias control you can access through the back panel, but on the one he made me, that control is on the top. When you crank it all the way, it completely squashes the signal and it sounds kind of farty. But if you turn it the other way, it opens up and lets the sound through. If you have a lot of fuzz going, you can use the bias control to quiet it down. The first pedal in my signal chain is a Creepy Fingers Pink Elephant, which acts like an old Tone Bender. I crank the shit out of that, but then there's a lot of noise. I crank the fuzz on the Creepy Face, but then can quiet it down with the bias control. If you run two fuzz pedals at once, you get a ton of hiss, even when you're not playing. I was just messing around at home and found those two pedals to be a really cool combination. But it only works with a few particular Marshalls—some heads are like, "No, this is ridiculous," while others are like, "Sounds good—let's do this!" I can't really explain why or how—it was trial-and-error. I definitely have the fuzziest tone I've ever gotten on this record.

Despite all the fuzz, there's a lot of low-end body in your sound.
Balch: Since the Creepy Fingers were designed as bass pedals, they retain a lot of the low end. Also, Reverend made a signature guitar for me recently that uses Railhammer pickups, which use pole pieces for the high strings and rail magnets for the lower strings. I really dig the pickups, but their low end was battling with the low end from the pedals. So when we worked on the signature model, I wanted the pickups to emphasize more midrange so it could cut through the fuzz.

Were there any other special things you wanted out of your signature guitar?
Balch: I run a website called playthisriff.com, where I interview musicians teaching their own songs. When I interviewed Frank Agnew from the Adolescents, I took notice of his Les Paul. It originally had three pickups, but the middle one was gone, leaving an empty chamber. The guitar sound was unique—it sounded like a Les Paul, but with a different harmonic structure up top. It definitely didn't sound like any other Les Paul I had heard. Scott's old Fender Jaguar has the same deal—he yanked the middle pickup and left the chamber empty. So when the guys at Reverend suggested having a routed-out chamber in the body underneath the pickguard, I was like, "hell yeah!" I don't know exactly why—I don't build guitars—but it just adds a lot more sustain.

The first guitar they gave me was a Reverend Daredevil. They showed up at a show in Detroit and offered it to me. At first I said "no, that's okay"—I'd been playing Gibson SGs for years. But my SG at the time had just been given a terrible re-fret job, so I tried the Daredevil. When I plugged it in, I loved how the notes sustained and bloomed. We started talking about a signature model, and

Bob Balch's signature Reverend guitar is based on the company's Sensei model and has beveled edges, satin finish, a tone chamber under the pickguard, and Railhammer Bob Balch Signature pickups.

I told them I'd want the midrange to poke through, and I asked for it to look more like their Sensei model.

Had you ever tried playing hollow or semi-hollow guitars with Fu Manchu before that?

Balch: Before I joined the band I was deep into jazz, so I had hollowbody guitars, but no, not really. In the studio it might be cool, just to add some texture for some leads or clean guitar up top. But live, it might be a little strange. For the most part, Fu Manchu needs to be as fuzzy as possible and have as much low end as possible.

Scott, what are your go-to guitars?

Hill: I mainly play an Ampeg Dan Armstrong guitar. I've been using Seymour Duncan Hot Rail pickups since '94. I replace them every couple of years because they get so sweaty. Those are a major part of my sound. I then go to the fuzz pedal, and then into a Marshall JCM800 head. I set the head as numb and dead as I can, and let the fuzz pedal get all the tone. I played a Fender Jaguar on this record, as well.

Bob, what are your other key pieces of gear?

Balch: For the recording, I used a '69 or '71 Marshall Super Bass. For live shows, I just got a Marshall DSL100H, because my other heads were having some trouble with arcing. I dig it—especially because I get so much of my tone from the guitar and the pedals. I basically just need an amp for the crunchy, AC/DC-type clean tone. On my pedalboard, I use a Voodoo Lab Pedal Power 2 for power. The Pink Elephant comes first, then the Creepy Face. That goes into a Boss TU-2 tuner, and then on to a ZVEX Sonar, which basically chops your signal in and out. I use that one at the end of "Dimension Shifter," and in the intro and outro of "Evolution Machine," coupled with an old MXR Phase 100. The Sonar goes into a regular Dunlop Cry Baby wah and then an Electro-Harmonix Memory Man with Hazarai delay. I use the delay a lot for leads, especially with the tap tempo on it. The Super Bass heads didn't have an effects loop, but live with the DSL100H, I run a '70s MXR Phase 100 and a BBE Soul Vibe through the effects loop.

On "Anxiety Reducer," we really wanted to rip off the tone of the guitar solo in the Isley Brothers' "Who's That Lady." So we plugged into the phaser and then straight into the board—that was apparently their trick to that sound. I wasn't sure how to duplicate that sound live, but it turns out if you run the phaser and the Soul Vibe at the same time—even if they are running at different rates—it comes pretty close to what's on the record. In the studio for "Anxiety Reducer," we used a Colorsound Bass Fuzz and an MXR Phase 100 direct. Brad and I are big Isley Brothers fans, and we had been talking about trying that technique for years.

Also, I never really used to care about picks, but for the past five years or so I've found I prefer 1 mm Dunlop Tortex picks. I used to play the same pick and the same guitar as Scott, because I was obsessed with playing in tune with him. But that was just my OCD—that obsession kind of vanished. And for Fu Manchu, it's actually cool that you can hear there are two different guitars playing together. When I switched to thicker picks, I found I could play the leads I actually wanted to. Before, I was playing with thin picks, and I found I didn't have the control I wanted for faster runs.

How do you tune your guitars?

Hill: We tune to D all the way down [D–G–C–F–A–D], and sometimes—like on "Evolution Machine"—we'll drop down to C.

Photo by Andy Nystrom

Godin
GUITARS
RETHINK
YOUR
TONE
Joseph Arthur
"If you want to paint with
true tone... Godin."
josepharthur.com
twitter: @josepharthur
facebook.com/josepharthurpage
Handcrafted in Canada and the USA
GODINGUITARS.COM
© 2014 Godin Guitars - Godin is a registered trademark of Harmonilab Inc.
photo : Michelle Shalloo Gadeikis

Name a band or a player who's caught your attention in the past few years.
Balch: Mike Scheidt from [doom-metal band] YOB—his guitar playing is insane. I teach guitar on Skype, and I get a lot of requests, like, "Teach me this ZZ Top lick," or whatever. When one guy asked me to figure out a YOB guitar part, I was stumped. And when I get stumped, I get intrigued. When I'm at home, I actually don't listen to much rock. Fu Manchu fans would be pretty disappointed if they knew what was going on when I'm at home—it's a lot of '70s soft rock.
Hill: I like Moab—their guitar player and singer [Andrew Giacumakis] produced our last record, and they have a new one out that I really, really like. I've been listening to Clutch's latest record a lot. That's pretty much it. On tour I don't listen to much music.

Bob, how did playthisriff.com come about?
Balch: I've been doing that since 2009. I was initially going to put up a website with just Fu Manchu lessons, so I filmed myself playing every Fu Manchu song that I played on and posted TAB in PDFs on the site. It was a subscription-based site, and I figured if I got 20 or so subscribers, that would be cool—a little bit of extra cash. But I realized I could drive more people to the site if I could interview other players, as well. Exodus was the first band to agree to do it, and now there are around 70 bands—including Megadeth, Queens of the Stone Age, Death Angel. It's a lot of thrash metal, stoner rock, and punk. We're constantly adding videos and tabbing stuff out.

When you go to shoot the videos, what gear do you bring with you?
Balch: Aside from the camera and lights, I bring an old BK Butler Tube Works TD-752 combo amp. I bring all that stuff backstage to various venues. I feel weird doing it—because I'll take over the backstage of a band I don't really know! A lot of players—Tim Bogert from Cactus, John 5, Tracii Guns, Gary Hirstius from the Circle Jerks—have invited me up to film at their houses. It's amazing to meet the people that I grew up idolizing. When I go home and edit the stuff, I end up learning a ton, too. In the past five years, I've gained a lot of knowledge. I parlayed a lot of that into Sun & Sail Club, the side project I did with Scott Reeder, the former bassist in Kyuss. I'd interview dudes and come home and be fully inspired.

You get some insane tones on Sun & Sail Club's *Mannequin*. What's going on there?
Balch: That's my guitar going into a vocoder and a Chandler mic preamp. For that, the guitar parts are a little bit faster than Fu Manchu. When you play fast with a fuzz, it can just get buried. So I used a Marshall JTM45 with the Creepy Face and blended it with a Marshall JCM800 with a Tube Driver. When we mixed it, I wanted to have the guitar as fuzzy as possible, with the Tube Driver channel in there to give it crunch and attack.

What's your pedagogy or approach to teaching lessons?
Balch: I just cater to each student. Some are absolute beginners, and we'll just learn songs. Others will come and say, "I've been improvising for years and I've just hit a wall." That's usually a pretty easy fix, because people tend to stay in a pentatonic box. So I'll say, "Try playing pentatonic on only two strings," or other ideas. Since I've started, I've gotten some bizarre requests that make me wonder how people found me. Somebody might ask me to teach them Chet Atkins licks. I'm like, "I'm in *Fu Manchu*, how did you find out about me?" [*Laughs.*] But it's cool—I'm stoked to do it.

Scott, any last words?
Hill: I've always wanted to just stand by my amp and play. I just plug into a fuzz pedal and a Marshall and turn it up as loud as I can.

SCOTT HILL'S GEAR

GUITARS
Ampeg Dan Armstrong Plexi
Fender Jaguar

AMPS
Marshall JCM800

EFFECTS
Univox Super Fuzz
Crown W-Fuzz

STRINGS
Ernie Ball Power Slinkys (.011–.048)

BOB BALCH'S GEAR

GUITARS
Reverend Bob Balch Signature

AMPS
'69 and '71 Marshall Super Bass heads
Marshall DSL100H

EFFECTS
Creepy Fingers Creepy Face
Creepy Fingers Pink Elephant
Voodoo Lab Pedal Power 2
Boss TU-2 Tuner
ZVEX Sonar
MXR Phase 100
Dunlop Cry Baby Wah
Electro-Harmonix Memory Man with Hazarai
BBE Soul Vibe
Colorsound Bass Fuzz

STRINGS & PICKS
Ernie Ball Power Slinkys (.011–.048)
Jim Dunlop 1 mm Tortex picks

BRAD DAVIS' GEAR

BASSES
1992 G&L SB-1
2007 G&L SB-2

AMPS
Ampeg SVT
Ampeg 8x10 cab

STRINGS
DR Strings Lo-Rider sets (.050–.110)

ONE SMALL STOMP FOR MAN...™
graphics : crimomedia.com
TONE
LEVEL
GAIN
DISTORTION
SC-01
TWA
TWA®
FLY BOYS™
MINI PEDALS
godlyke.com
GODLYKE DISTRIBUTING
ULTRA-COMPACT
SUPER-AFFORDABLE
TOTALLY INCREDIBLE

DOG DAYS
Vintage Guitar Straps
www.dogdaysvintage.com
Handmade in Santa Cruz, CA www.dogdaysvintage.com

Making the Leap

BY STEVE COOK

Amos Heller's talent and persistence carried him from modest cover-band tours to backing Taylor Swift.

The stadium goes dark. The screams of 70,000+ fans deafen mere mortals, but the band is wearing in-ear monitors, anxiously awaiting the cue to kick off the show. They are dialed in and ready. At such moments, a player must occasionally wonder, "How did I get here?"

For Amos Heller, keeper of the low end for megastar Taylor Swift since 2007, that question comes up a lot, and I was able to ask him myself. The answer—and his approach to bass and penchant for thrash metal—may surprise you.

Amos is a native of Charlottesville, Virginia, and a proud product of the public school system. "Music programs in Charlottesville are well funded and passionately led, and I credit my teachers for the push in the right direction," says Amos. "My middle-school orchestra teacher, Mr. Lind, would give me private lessons on upright bass to help me keep up, and in high school, Mrs. Thomas would challenge us with difficult pieces, pushing us to our fullest potential."

In the midst of this formal training—at age 13, to be exact—Amos purchased his first electric bass and immediately learned the entire *Kill 'Em All* record by Metallica. "I still play 'Anesthesia' when auditioning pedals," he says.

Amos' path from "Hit the Lights" to "Fearless" was far from direct, but like every great success story, the protagonist connected the dots to keep moving forward. Amos played in cover bands in high school and college because, he says, "I realized cover shows were more fun because people would actually attend." Amos settled into the Cincinnati music scene. His degree in sociology merely hung on the wall as he went "all in" with a band—one that, like most bands, didn't make it.

Another opportunity arose when Amos connected with local producer Ric Hordinski (Over the Rhine, David Wilcox), who began offering him a decent amount of studio work. All the while, Amos knew the opportunities were limited. "I'd see a tour bus roll through town, and I would want to be on it," he remembers. "The problem was that they were always just passing through town and never leaving from there."

Figuring that "one must be present to win," Amos packed the car and moved to Nashville. His goal was to learn as much as he could about playing live and in the studio. As fate would have it, two other friends from Virginia moved to town at the same time, and all three began the "hustle"—that constant search for gigs and cracks in the music industry's armor.

Amos found Nashville extremely helpful and generous to the "new kid." Other players let him sit in on storied Lower Broadway and suggested songs to learn to expand his tool set. It was important for Amos to make a connection and put everything he had into each show, be it a three-song showcase or a four-hour cover set. His dedication paid off, and before long he quit his coffee shop gig to go on the road with a cover band.

Amos was a fast-climber in the scene, each move a couple of steps forward. "I've been fortunate that progress has been continual," he notes. He graduated from van-and-trailer tours to the coveted tour bus, joining Rhett Akins, then Josh Gracin. Then Amos received a call from Al Wilson, who was the drummer on the first gig Amos ever played in town, and who happened to be the bandleader for a very young new artist named Taylor Swift. She was getting more popular, but few could have predicted that she would become the most successful artist of the digital age. (Her last record, *Red,* sold 1.2 million copies in seven days.) And she has a *great* band behind her night after night, playing for millions of people per year.

Amos remains a bass gear junkie, constantly searching for new tones and sonic toys. He takes a straight-ahead approach to his tone, relying on great basses as opposed to lots of outboard gear.

A proud Fender endorsee, Amos used his '62 RI Precision (loaded with Seymour Duncan Quarter Pounders) on almost everything during the last U.S. tour, though he also carried a Cabronita P-bass and a Dimension 5 for extended range. His one "quirky" bass, a '71 Orlando, also sees some use. His pedalboard is modest: an Xotic Bass RC Booster, a Radial Classic Tube Distortion, and an ancient Ibanez chorus, all controlled by tech Steve Uncapher. With no amps on stage, Amos runs it all through an Avalon U5 preamp.

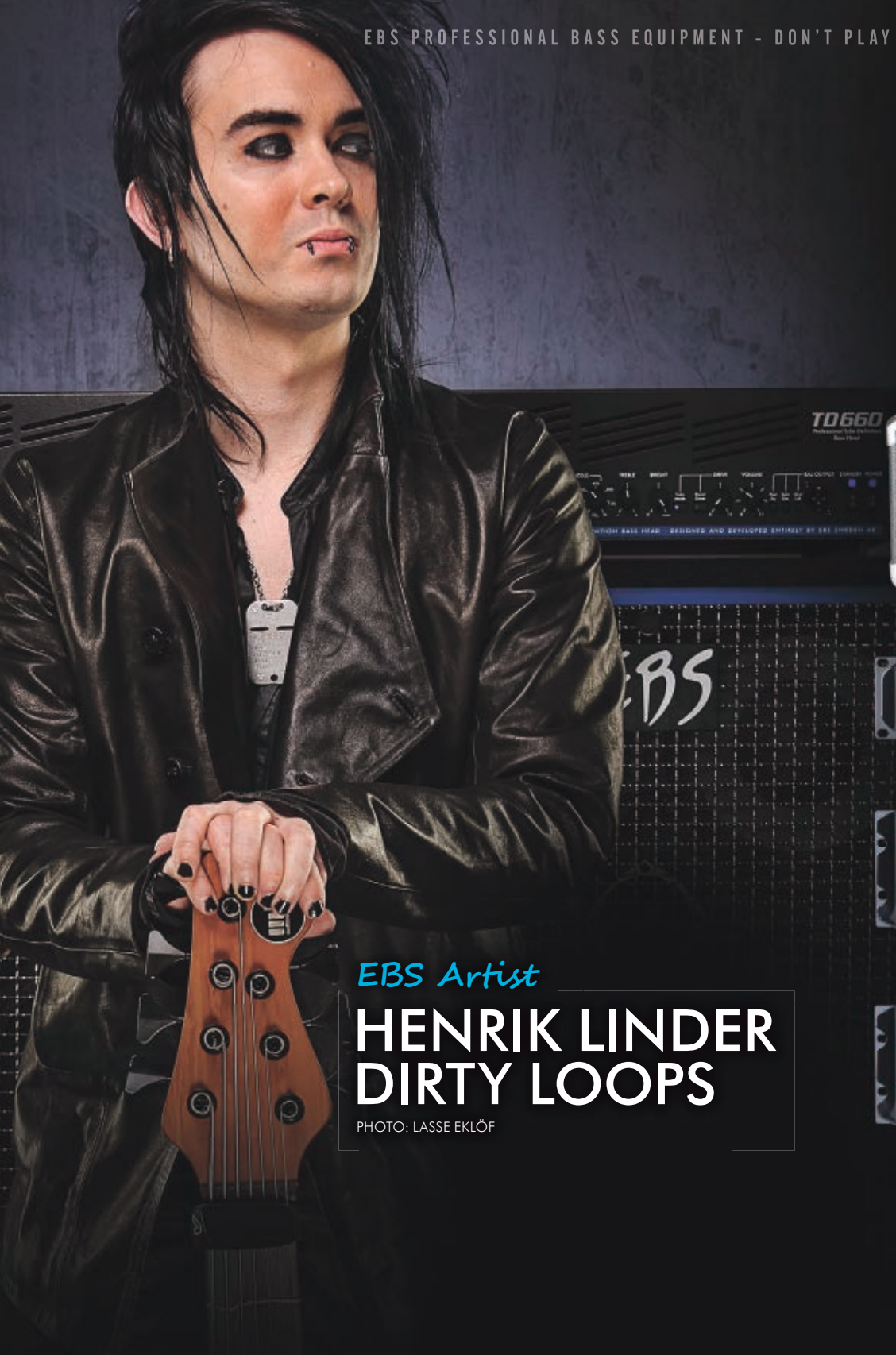
Even with all the exposure and attention, Amos focuses on remaining musically sharp. He does sessions in Nashville, and a recent touring hiatus found him back on Lower Broadway, playing four-set nights. He recently took a lesson from bass legend Michael Manring, and is diving deeper into chordal theory. The music on his iPod is radically diverse: Meshuggah, Skrillex, Tedeschi Trucks Band, D'Angelo, King's X. He takes in local live music when he can, while a new son occupies his downtime.

So there's some insight into how to land a gig with one of the biggest artists on the planet. Amos is a well-respected player in the Nashville bass community, and anyone hoping to move forward in their career or playing ability should emulate his drive and persistence. Your gig may not be as big as Amos', but if you treat it as such, it may take you places you have only dreamed.

STEVE COOK
started as a touring bass player when printed maps were the only way to get there. His extensive studio and touring credits run the gamut from rock to jazz to country. Also a busy producer and WWII aviation junkie, he welcomes you to reach out via Twitter @shinybass.

Photo courtesy of Jon Moody/seymourduncan.com

EBS PROFESSIONAL BASS EQUIPMENT - DON'T PLAY WITHOUT IT!



LIGHTWEIGHT! **EBS REIDMAR.**
470 W DYNAMIC OUT/ 250 W RMS, 7.1 lbs. *MAP $ 399*

NEW! **EBS CLASSIC 500.**
500 W RMS, SOLID STATE, VINTAGE STYLE. *MAP $ 999*

MADE IN SWEDEN! **EBS HD 360.**
360 W RMS, SOLID STATE. *MAP $ 1,299*

MADE IN SWEDEN! **EBS TD660.**
660 W RMS, TUBE/SOLID STATE. *MAP $ 1,999*

MADE IN SWEDEN! **EBS FAFNER II.**
750 W RMS, 2-CHANNEL PREAMP. *MAP $ 2,499*

EBS Artist

HENRIK LINDER
DIRTY LOOPS

PHOTO: LASSE EKLÖF

Professional Bass Equipment
EBS®

Don't Play Without It!

MDG

Distributed in USA by:
Musical Distributors Group (MDG)
Phone 866-632-8346
www.musicaldistributors.com

WWW.EBSSWEDEN.COM

Designing a 24-string Bass

BY HEIKO HOEPFINGER

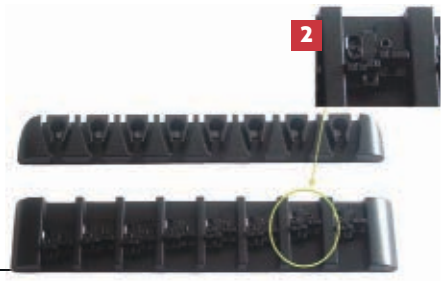


Photo 1. Christopher Cardone with his custom 24-string bass.

Photo 2. A cleverly designed 24-string tailpiece and bridge.

Once in a while a luthier receives a very special request from a customer. Some builders reject the challenge—which makes sense from a business standpoint because you can't charge for all the time you spend on a one-time build—while others accept it. Some luthiers take the commission simply out of curiosity, while others do it for the extra exposure and buzz a custom oddity can generate.

After the 2014 winter NAMM, photos of a very unusual 24-string "bass" went viral (**Photo 1**). In particular, the huge headstock, which is almost the size of the body, immediately caught everyone's attention. Let's face it: A 12-string bass—a normal 4-string instrument that's enhanced with a pair of octave strings for each standard string—is a rare find, but this one easily tops it.

Prat Basses accepted the challenge of building the 24-string beast, and looking at the photo many of us wonder, why would anybody want something like this? The man behind the instrument's concept is Christopher Cardone, owner of Kalium Strings. Recently I asked him to explain why he commissioned this instrument.

"The best response is: Why not? It hadn't been done and it seemed like a great idea," Cardone says. "I've heard similar instruments sound so choral and orchestral, and I wanted that huge, multi-course tone for myself. Also, it's a great showpiece for a string company. And last but not least, it's huge, pretentious, and vicious."

Finding the right string gauges could have been a real challenge, but as Cardone explains, running a string company was an advantage here. "I used our tension calculator to determine what gauges would make a balanced set. Because this bass has so many strings, I use a very light tension. The bass has a 33" scale and I tune it F♯ to F. I use a .174 for the F♯ and the resulting tension is about 33 pounds. I was able to keep all the strings within a half-pound of each other. To fully restring the bass takes a little over an hour."

And does he have to sit to play it? "I can play it standing or seated," he elaborates. "The reason you see so many sitting pics is that when I'm playing smaller, more intimate shows, I like to be face level with the audience. I like to get feedback from them as I play."

Building a typical extended-range bass is mostly a no-brainer: Widening the fretboard and adding extra tuners really isn't rocket science. There can be difficulties, such as dealing with extremely narrow string spacing, finding a manufacturer for those plus-sized pickups or other hardware, and maybe including a second truss rod. It's certainly more work than building the average bass, but you rarely need to reinvent anything. A few drawings and some basic math should suffice, unless some constructional oddities chime in.

But this is different. Despite the first impression of the huge headstock, the real difficulty is on the other end of the bass—the bridge! Instead of a 24-string with consecutively tuned strings, Cardone wanted an 8-string bass with a pair of high-octave strings adjacent to each low string. This design required a special arrangement of strings and adjustability. No doubt Oscar Prat spent time drawing the headstock before he cut it, but creating the bridge definitely introduced greater problems.

Octave strings are usually pretty close to their lower ally, so the first problem is to find a space-saving arrangement for all 24 ball ends. The tailpiece in **Photo 2** reveals the solution. Cleverly designed channels route the three strings per course in such a way that they have an almost straight path to the bridge.

But once you get to the bridge itself, things get narrower and trickier. Even if you forego individual height adjustment and raise or lower all three strings at once, you still have to care about individual intonation, especially for all the highest strings.

The saddles on a 12-string guitar bridge are often split to allow separate intonation adjustment for the highest string, but here the saddle is just too small to do a three-way split. For this 24-string bridge, the designer solved the problem by adding a lockable slider on top of each saddle—almost like a tiny shuttle under the first octave string. This allows all three strings to be intonated individually.

So whenever you see the next unusual extended-range bass, don't let the wide neck fool you: The trickiest stuff is almost always in the small details.

HEIKO HOEPFINGER *is a German physicist and long-time bassist, classical guitarist, and motorcycle enthusiast. His work on fuel cells for the European orbital glider Hermes led him to form BassLab (basslab.de)—a manufacturer of monocoque guitars and basses.*

Photo 1: Photo courtesy of Aaron Gibson **Photo 2:** Photo courtesy of ETS Bass & Guitar Hardware (etshardware.com)

NAPALM DEATH
Warwick®
Basses, Amps & Rock'n Roll.
SHANE EMBURY
The first Carbon-Neutral Company in the Music Industry
Family Owned - Solar Powered - Sustainably Manufactured in a Green Environment
www.warwickbass.com
www.usmusiccorp.com
sales.support@usmusiccorp.com
www.facebook.com/warwickframus
ClimatePartner°
climate neutral
Instrument | ID: 11117-1212-1002
Warwick®
Basses, Amps & Rock'n Roll.
FSC
EMAS
DIN 14001
DIN 18001
ISO 50001

Adding an Out-of-Phase Switch to a Telecaster

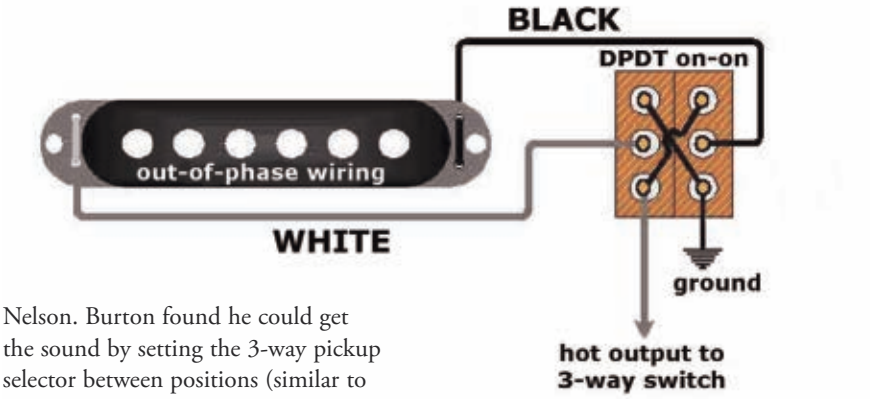
BY DIRK WACKER

Now that we've investigated the Telecaster's bridge and neck pickups individually, it's time to have some fun with both pickups together. Are you ready to learn how to get out-of-phase sounds from a Tele? In this column we'll cover the electrically out-of-phase mod, not the magnetically out-of-phase version. (The latter, which involves modding a pickup, will be the subject of a future column.)

How it works. First, it's important to understand the basic principle: To get this out-of-phase effect, you need to use *two* pickups together, with one of them wired in reverse phase relative to the other. When two pickups are in phase, they reinforce each other sonically. When they're in opposite phase, many frequencies are canceled. What we hear are the "leftovers" from these cancellations. The closer the two pickups are physically, the greater the cancellations, which results in a thinner sound and reduced volume. That's why it's better to use the neck and bridge pickups for out-of-phase wiring than to pair either one with a middle pickup. You want as much distance between the two pickups as possible.

What does it sound like? Basically, it's a squawky "inside-out" sound in which two pickups that normally sound full and rich are turned into a thin and shrill couple. Why would you want that? It's great for reggae or funk, where a thinned-out tone sits well in the mix. Also, this sound cuts through effects or heavy distortion that would otherwise make your tone too muddy. Brian May takes advantage of this with his Red Special guitar, with its individual out-of-phase switches for each pickup. He often used this sound on Queen recordings to clarify his tone while using heavy distortion.

The first famous musician to discover the out-of-phase glories of a Telecaster was James Burton, and he did so by accident. He says he stumbled on this sound on his stock-wired late-'50s Telecaster while backing up Ricky Nelson. Burton found he could get the sound by setting the 3-way pickup selector between positions (similar to what Strat players did to achieve position 2 and 4 before the 5-way switch became standard). He called it his "little Chinese tone." You can hear this on many famous Ricky Nelson records, including Burton's solo on "Travelin' Man."



Heat up the soldering iron. To put our Tele pickups electrically out of phase—and have the ability to switch back to the stock sound—we use a phase-reversal switch as shown in the diagram. Which of the two Tele pickups should you connect to the phase switch? It doesn't matter —it sounds the same either way.

But first, it's very important that you've done the pickup mod we discussed in "Preparing Your Tele for Future Mods," available at premierguitar.com. This entails disconnecting the bridge pickup's ground from the metal base plate or the neck pickup's ground from its metal cover. The new, third ground wire connected to the base plate or metal cover always stays connected to ground, while the pickup's ground wire is the one that has to be connected to the phase switch. Naturally you only have to do this mod to the pickup that will be connected to the phase switch; the other pickup can stay stock.

You can use any DPDT on-on switch for this mod. A perfect location for the switch is on the control plate. Simply drill a small hole between the volume and tone controls and mount the switch there. Or you can use a push/pull or push/push pot for the switch, replacing one of the conventional pots.

The wiring is fairly simple: Solder the two jumper wires on the phase-reverse switch as shown in the diagram. Choose one of the pickups and unsolder the two pickup wires where they connect to your guitar. Solder the phase switch "out" wires (hot and ground) to the exact spots where the pickup wires were before. Solder the two pickup wires to the input terminals on the phase switch. Mount the switch to the Telecaster's control plate and start enjoying the new sound.

And now, breaking news. After eight years—a freaking long time for a monthly column—we're going to update the basic concept of Mod Garage. Originally, we set out to explore a particular model of guitar in depth with a series of columns dedicated to it alone. We've done this with the Stratocaster, Esquire, and Telecaster. Starting next month, we'll change the guitar model from column to column. We'll also make each article self-contained, so new modders will find it easy to join the fun without having to read several previous parts to catch up. We're excited about "Mod Garage 2.0," so please let us know what you think. Meanwhile, keep on modding!

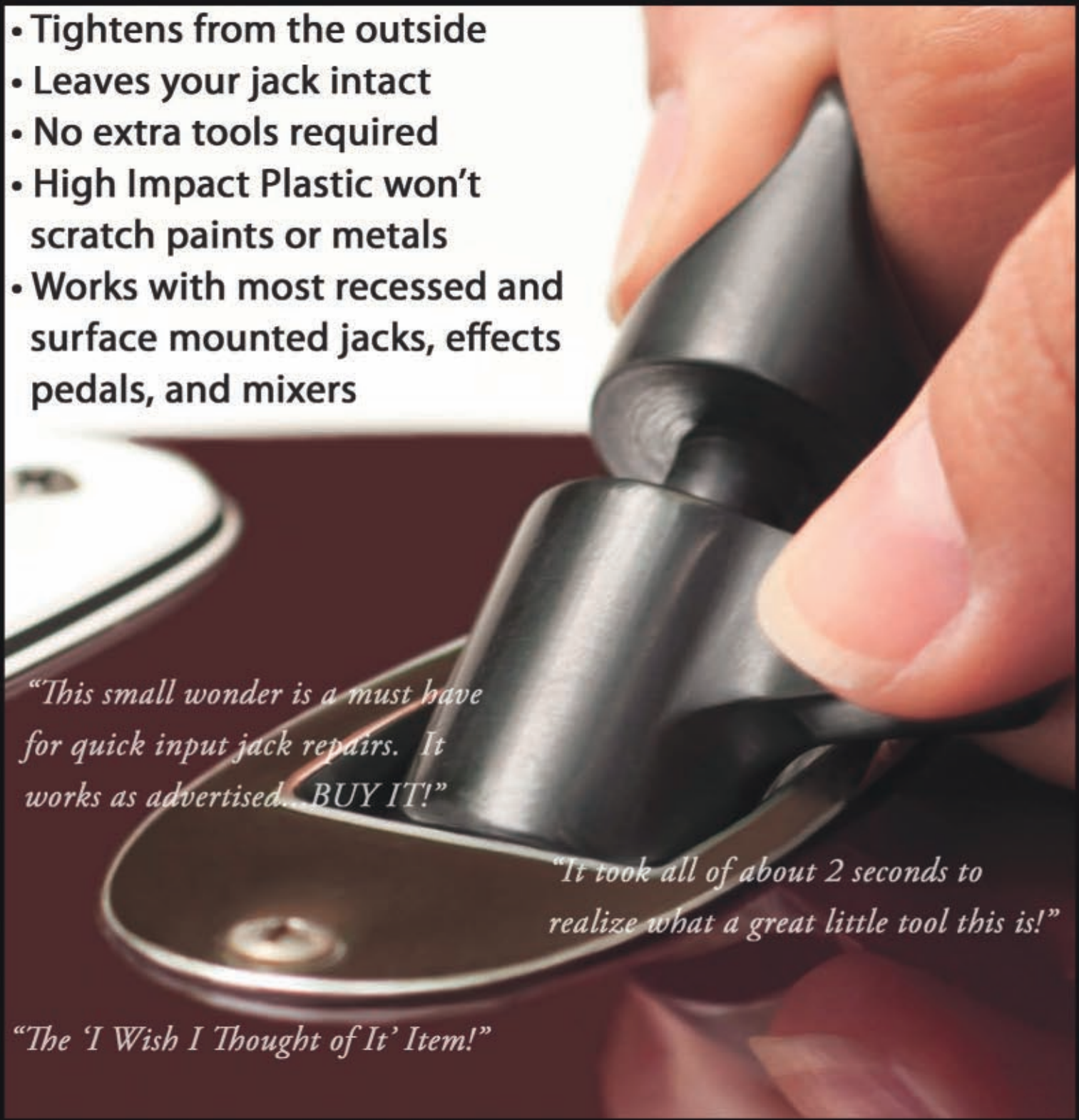
DIRK WACKER *lives in Germany where he plays country, rockabilly, and surf music in two bands, works regularly as a session musician for a local studio, and writes for several guitar mags. He's also a hardcore guitar and amp DIY-er who runs an extensive website on the subject (singlecoil.com).*

Wiring diagram courtesy of Seymour Duncan (seymourduncan.com)

Introducing the BULLET Guitar Jack Tightener

Available exclusively from Allparts

Simple. Effective. Inexpensive. Long overdue.



BIGROCK ENGINEERING

ALLPARTS

www.allparts.com/bullet

BRITISH-STYLE 18-WATT AMP KITS FROM MOJOTONE AND TUBE DEPOT

THE MEAN 18

We built two killer British 18-watt amp clones from kits.
Which sounds best? Which was more fun to make?

BY JOE GORE

"I'm 18, and I like it." —Alice Cooper

In 1965 Marshall unleashed the first 100-watt head, the biggest, loudest guitar amp to date. At the same time, the company went small, unveiling three 18-watt combos that looked like scaled-down editions of the JTM-45, Marshall's earlier flagship model. The 100-watt amps were instant hits, forever changing—if not defining—the sound of classic rock guitar. Meanwhile, many of those mini-Marshalls languished in music shops, collecting dust. Guitarists barely noticed when the 18-watt line expired two years later.

Nearly half a century later, things are different. In that era of primitive PAs and monitors, you needed a monster amp to fill the auditorium. You could never rock the Fillmore with a dinky 18-watter! Today, of course, you can rock the Fillmore with an iPhone and an amp simulator app. So while a market for Magnum-sized amps remains, we're likelier to choose our ideal wattage for tonal reasons than for sheer volume.

Meanwhile, guitarists gradually realized that those old 18-watters delivered exquisite rock tones. When the boutique amp scene blossomed in the '90s, builders often drew inspiration from these feisty little combos. Interest snowballed thanks to the 18watt.com site, whose members reverse-engineered the originals and pooled resources to source parts. And now, thanks to the current DIY craze, the 18-watt clone has become one of the most popular amp projects, with multiple manufacturers offering complete kits. Today's 18-watt fan can choose between boutique spinoffs, DIY kits inspired by the originals, and handwired Marshall reissues starting at $2,499.

For this article, I tackled two projects: Mojotone's British 18 Watt Style 1x12 Combo Amplifier Kit ($952), and Tube Depot's Classic British 18W Tube Guitar Amp Kit 1x12 ($849). We'll look at the parts, discuss the build experience, and evaluate the final results. But first, a few words about the magic of these mini-monsters. *Continued on p. 136*

Before You Build …

SOME QUESTIONS TO CONSIDER BEFORE ATTEMPTING AN AMP BUILD

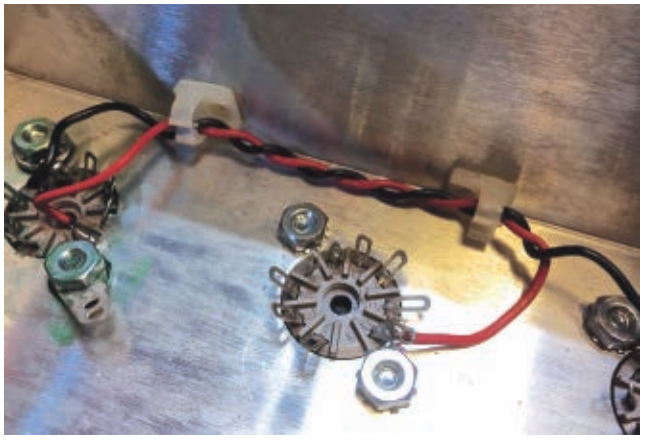
Not for noobs? Anyone with average intelligence and properly functioning hands, eyes, and ears can build an amp from a kit—but it's a *lot* easier if you have some electronics experience. If you're just getting started with soldering, schematics, and such, consider a relatively simple project, like a fuzz pedal kit from the likes of BYOC, Mod Kits, Mammoth, or General Guitar Gadgets. There's no better way to learn the basics, and when—um—the smoke clears, you'll have some nice new stompboxes. And remember: While it's all too easy to hurt yourself with tools while building pedals, low DC voltages mean you're unlikely to electrocute yourself. With AC power, you run a genuine risk of painful, or even fatal, shocks. Take safety guidelines seriously.

Know your motivation. Are you building an amp to save money? To learn how amps work? For a few fun hours at the workbench? Your motive can steer you toward your ideal project. Consider the kits reviewed here: The Mojotone project includes a ready-to-solder turret board to house the passive circuitry, while the Tube Depot project requires you to make your own turret board. You must mark and drill each hole and pound in each tiny turret. Does that sound like a good time or a royal pain? Choose accordingly.

Download docs in advance. Most kit companies post schematics, wiring diagrams, and build instructions (if any) online. Download and review them in advance to minimize nasty surprises.

A clean, well-lighted place for solder fumes. You need decent tools to complete these kits. Not just screwdrivers, pliers, and wire cutters, but an electric drill and a set of bits. A high-quality, adjustable-temperature soldering station such as a Weller or Hakko helps immensely. It's definitely worth spending the $75 or so, especially if there might be more DIY projects in your future. A ventilated, well-lighted workspace is also crucial. Also, count on *everything* taking longer than intended, so don't start building at your kitchen table if you plan to eat there this week.

Help on the horizon? DIY kit vendors tend to provide limited tech support, if any. Some offer basic phone and email help, or have online forums where you may find good advice, but I recommend planning for the worst. Do you have any friends with electronics skills?



Working with fragile and finicky tube sockets can be challenging for soldering novices.

Do something nice for them now so you can hit them up for help later. Do you have a favorite amp tech? Ask in advance whether they'd be willing to help if you get stuck. If you hire good help at an hourly rate, you can learn volumes and still emerge with a great amp at about half the cost of a premade one.

Pick your parts? Most amp kits include high-quality parts. Still, you may want to upgrade to ultra-premium parts. Most companies offer stripped-down versions of their kits for those planning to provide their own tubes, transformers, speakers, and/or cabinets. (If you don't see such options on the website, ask.) There's a lot to be said for the convenience of one-stop shopping, but if you're a devotee of audiophile transformers, rare NOS tubes, or a speaker type not offered by the vendor, consider an "incomplete" kit. On the other hand, you might not want to blow your budget on fancy parts for your first build—you may need the experience of several builds to create your dream amp.

Patience, patience. Chances are *something* will go wrong during your build. With so many parts per kit, there's much room for mishap. Your kit might show up minus a small part, or you might lose one, so prepare for the possibility of waiting for replacements. The same goes for parts you damage yourself—and sadly, it's all too easy to snap a fine wire or melt a plastic tube socket. Don't build when you're stressed or rushed. Don't count on your new amp being ready for Saturday's gig. And if you find yourself wanting to break things intentionally, put down that soldering iron and step away from the workbench!

Mojotone's vintage-approved parts come in neatly arranged plastic boxes.

Eighteen watts of fury. Fans of the 18-watt celebrate its simplicity, portability, and surprisingly virile volume. But the amp's most oft-cited attribute is its ability to deliver big British tones at relatively modest levels. The frequently heard claim that the 18-watt provides plexi-like tones at bedroom volumes isn't *quite* true—its dual EL84 tubes yield a sound quite distinct from their larger cousins with their KT66s and EL34s. The 18-watt's tone stack is simpler—each channel has only a single simple tone control. Also, much of that classic plexi color has to do with the distinctive phase cancellation produced by closed-back 4x12 cabinets. You don't get that effect from a single speaker in an open-backed cab.

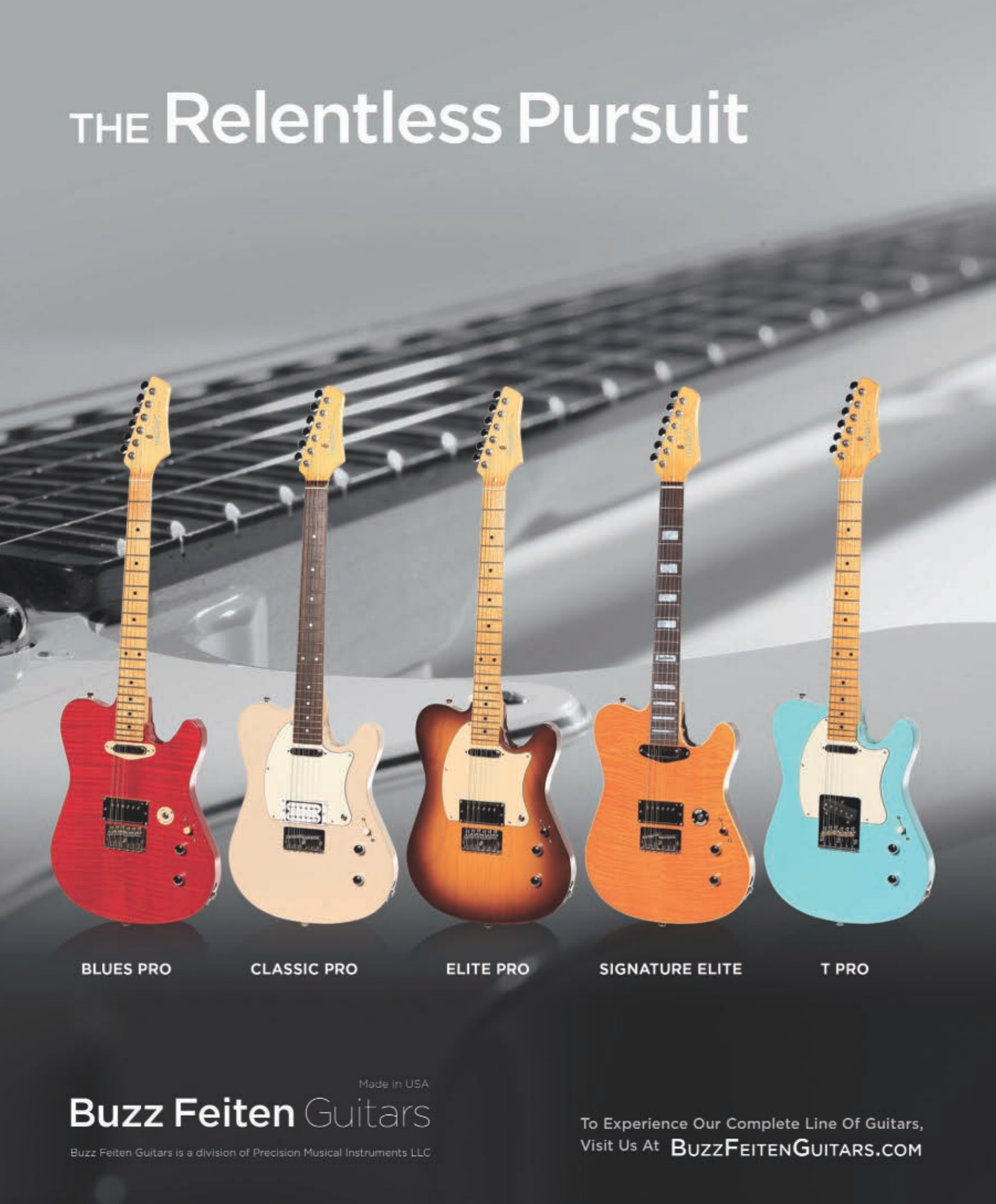
Still, you'd never mistake the tones of the 18-watt for those of the comparably sized Vox AC15 or Fender Deluxe. The 18-watt doesn't provide Fender's focused shimmer or Vox's electrifying crackle, but its big, bold distortion tones are guaranteed to flutter the hearts of classic rock fans. Its less overdriven tones are great too, though they're seldom completely clean—this is an amp that *wants* to shift into overdrive, and even its low-gain tones have a fair amount of "hair." Cascading the amp's dual channels with a jumper cable—sort of a proto-Mesa/Boogie effect—unlocks additional cool colors. The amp even boasts a distinctive tremolo circuit with a thick, deep throb.

There are some 18-watt naysayers, who rightly point out that model lacks the bass impact of a larger amp. Others bemoan a lack of brilliance, though I certainly don't find the model lacking in highs. But at the risk of oversimplifying, those who a) love the British big-amp sound of the '60s and b) seek it in a sensibly sized package are likely to adore the 18-watt. Mind you, it's on the loud side for a home amp, at least if you crank it (and cranking it is sort of the whole point). In fact, it's got enough volume for many gigs, or at least ones without super-loud drummers.

About the kits. Both kits here are inspired by the 1x12 version of the 18-watt. Like many kit vendors, Mojotone and Tube Depot offer multiple versions of the product, priced according to which parts are included, since some DIYers prefer to provide their own cabs, tubes, speakers, and/or transformers. I built the complete kits, which come with everything you need except a workbench and tools.

Both kits stick closely to the '60s schematic (though their board components are laid out differently). They boast stout, solid-wood cabinets and rugged external hardware. (Actually, the two kits are nearly identical in those regards.) Both kits include a full complement of JJ tubes (two EL84 power tubes, three 12AX7/ECC83 preamp tubes, and a EZ81 rectifier). Both use high-quality pots and switches, but employ modern plastic tube sockets and closed plastic jacks. But beyond that, the parts, build experiences, and sonic results differ.

THE Relentless Pursuit



Made in USA

Buzz Feiten Guitars

Buzz Feiten Guitars is a division of Precision Musical Instruments LLC

To Experience Our Complete Line Of Guitars,
Visit Us At BUZZFEITENGUITARS.COM

MOJOTONE

BRITISH 18 WATT STYLE 1X12 COMBO AMPLIFIER KIT

The parts. Mojotone stocks their kit with premium, retro-style parts. The all-important power and output transformers are high-quality custom-spec Heyboers. Most other parts bear the Mojotone brand, and the company prefers not to disclose the individual manufacturers. But the large-format capacitors and chubby carbon-composite resistors appear period-authentic and gratifyingly "mojo," as is the vintage-style cloth-insulated push-back wire. The Mojotone-branded BV-30V speaker is a Celestion Vintage 30 sound-alike. The kit includes a two-button footswitch in a high-quality metal enclosure for activating the trem circuit and toggling between low and fast speed ranges.

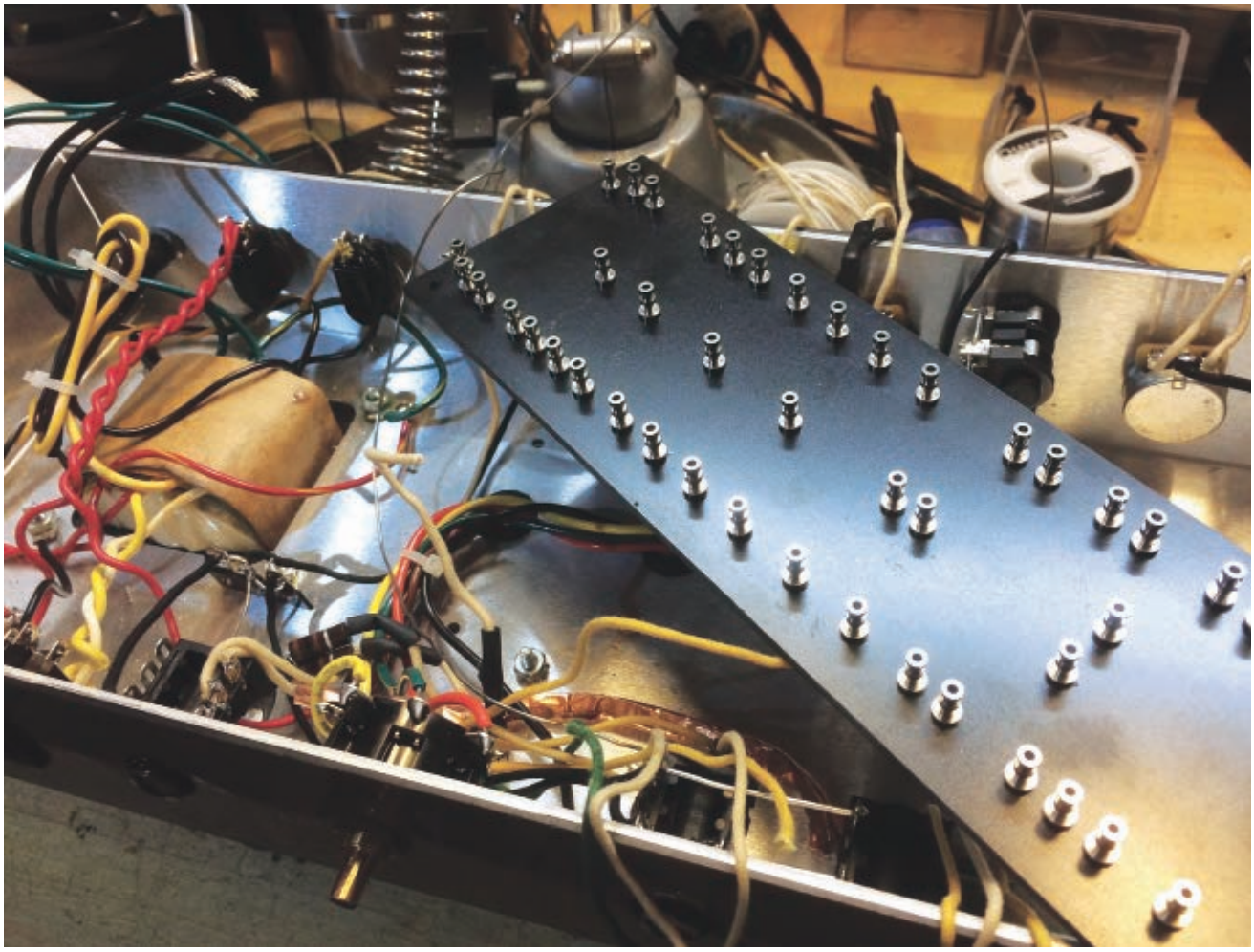
The build. Most amp kits are light on documentation, and the Mojotone kit is no exception—all you get is a schematic, a wiring diagram, and a parts list. (You can download them for free from the Mojotone site.) Like other kit vendors, Mojotone does not provide unlimited, on-call support. (According to Mojotone's Andrew Simmons, "Mojotone is available for technical support via phone or e-mail, although e-mail is preferred. We do expect potential kit builders to able to read and understand the wiring diagrams and schematics before attempting to build an amp kit.")

This kit definitely demands some tech expertise. Example: The wiring diagram doesn't depict all the tube-socket connections, but includes a note reading "Heater wiring omitted from drawing for clarity." My hunch is, if you don't know what that means or have access to someone who does, this project may be a bit advanced for you. (The heaters, by the way, are the elements in tubes that supply the current.) On the plus side, all the small parts are organized in a pair of compartmented boxes, perfect for workbench assembly. All parts are identified on the inside of the box lid, and labels include such helpful details as color codes to verify

EX-SS

D'Angelico New York

WWW.DANGELICOGUITARS.COM



Mojotone's kit includes a preassembled turret board for mounting passive components.

resistor values. It's a thoughtful, builder-friendly detail.

Most of the caps and resistor reside on a turret board, though a dozen or so passive components attach directly to pots or tube-socket terminals. Mojotone includes a premade turret board. Components are logically laid out, though some solder points are tricky, with as many as five connections meeting on a single turret. Possible trouble spots for DIY novices include the finicky tube sockets. Those tiny metal terminals have a tendency to pop out of their sockets, and the plastic bases melt all too easily. These probably won't be problems if you work quickly and confidently, but if wiring errors force you to rework the connections repeatedly, you may find yourself ordering a few extra sockets. The jack connections can also be challenging. There's no documentation on mounting the chassis in the cab or installing the speaker, though it's pretty easy to figure out. Minor drilling is required.

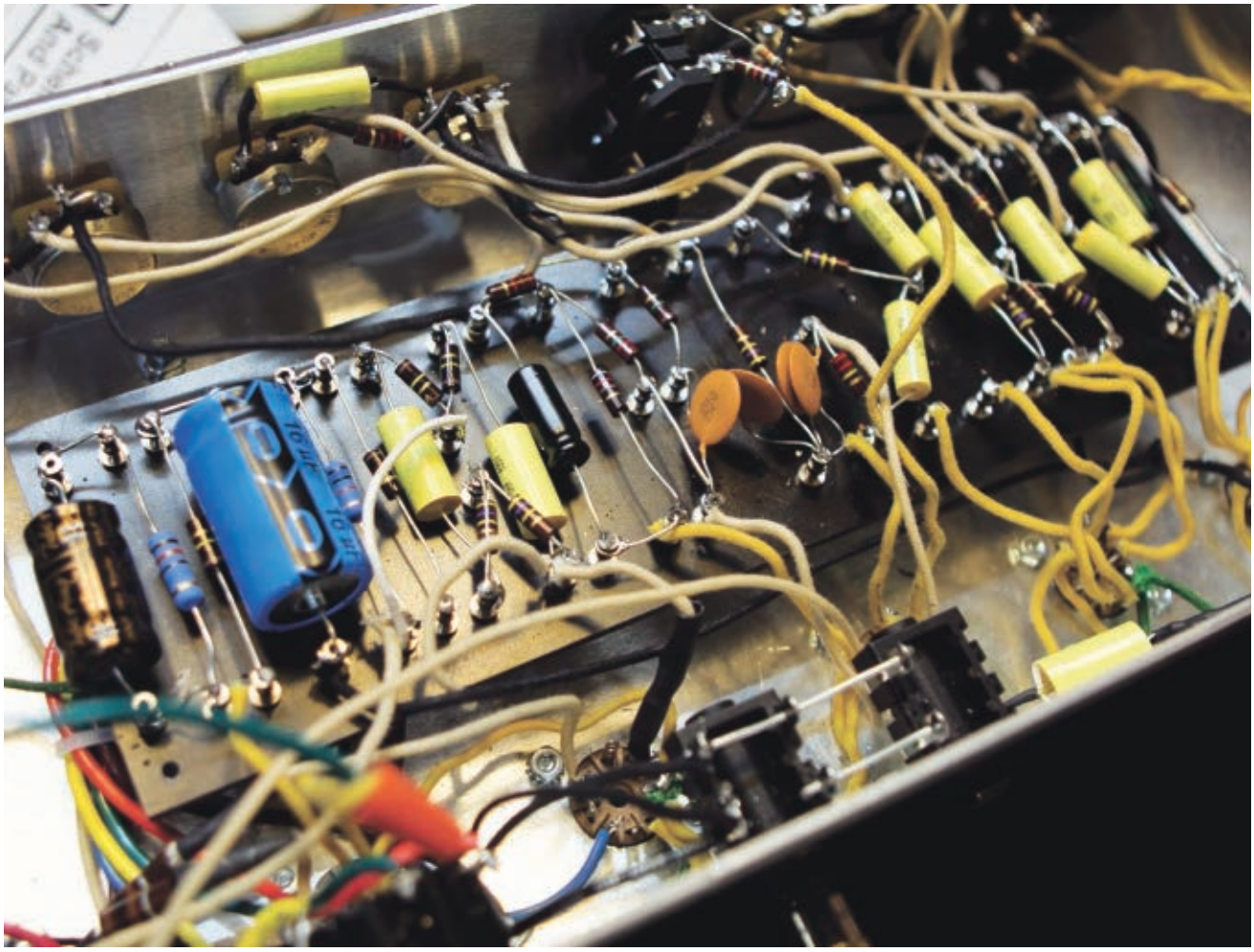
Building an amp is an intense experience. By the time you've completed a successful build, the project is your baby. Who doesn't love their own baby?

It took me about a day to assemble the kit. (For perspective, I've built more stompboxes than I can count, but I've only made half a dozen amps, all from kits.) The normal channel sounded great from the get-go, but I encountered wiring problems with the trem circuit. I tried to pinpoint the errors on my own, but failed—I needed help from an amp tech. (Nothing wrong with the kit—the errors were mine alone.) In the end, it took almost as long to troubleshoot the amp as to build it—not a rare DIY occurrence. An expert builder could probably tackle the project in five hours or so—and get everything right the first time.

The result. Building an amp is an intense experience. By the time you've completed a successful build, the project

The ultimate low-power American inspired amplifier!
Skylark
The Skylark began with our love and appreciation for classic home/student 60s American amps such as the Harvard to name but one. These small student amps deliver organic tube juice and vibe at real world volumes making them super usable and super satisfying.
Our Skylark takes this fun utility a giant leap forward. Reverb, a built in power attenuator, Hi/Low gain switch, and the extended range presence control offer an incredible pallet of tones from the Skylark's beautiful dove-tailed cabinet.
CARR
You Tube
www.carramps.com

YOUR NEW
SOUL
COMPANION
BANK
LIVE
TAP
SOULMATE
THE NEW
SOULMATE
EFFECT BOARD
Five classic T-Rex effects: Overdrive, Distortion, Delay (with Tap Tempo), Reverb, and Boost.
Plus programmable combinations, an on-board tuner, an effects loop, and more.
T·REX
Find your SoulMate at
t-rex-effects.com



Mojotone stocks their 18-watt kit with vintage-style parts, including carbon-composite resistors, large-format capacitors, and cloth-insulated wire.

is your baby. Who doesn't love their own baby?

But even allowing for such subjectivity, the completed amp is a knockout. The hardware feels substantial. (How substantial things are *inside* depends on you.) The tone and feel are comparable to what you'd encounter in a boutique 18-watt selling for over two grand.

The tones are faithful to original '60s sound. You get strong power amp distortion at relatively low levels, creating the impression of a larger, louder amp. The highs sizzle with excitement, but never get nasty. As on the original, lows are modest—this amp type probably won't suit metal players, or anyone else seeking substantial bass wallop. (Out of curiosity, I tried the amp through a closed-back cabinet. Naturally, there was a bit more bass impact, but the sound lost some of its unique character.)

The way distortion accumulates as you raise the volume feels a bit Vox-like (no surprise, since most Voxes use the same EL84 power tubes). But despite the EL84s and open cab, you probably won't mistake the sound for that of a Vox. Even with the volume maxed, notes and chords retain impact, definition, and high-end animation. (In fact, one of the most fun ways to use the amp is to floor the controls and regulate the output via your guitar's volume and tone knobs.)

The clean tones are wonderful too. They're far from Fender-like, but they have an airy shimmer you don't always associate with big British amps. The single-band tone control is a delight, with usable sounds throughout its range. This amp sounds good no matter how you set the controls.

CLICK HERE TO HEAR this amp at premierguitar.com/aug2014

RATINGS

Mojotone British 18-Watt Style 1x12 Combo Amplifier Kit

$952 street
mojotone.com

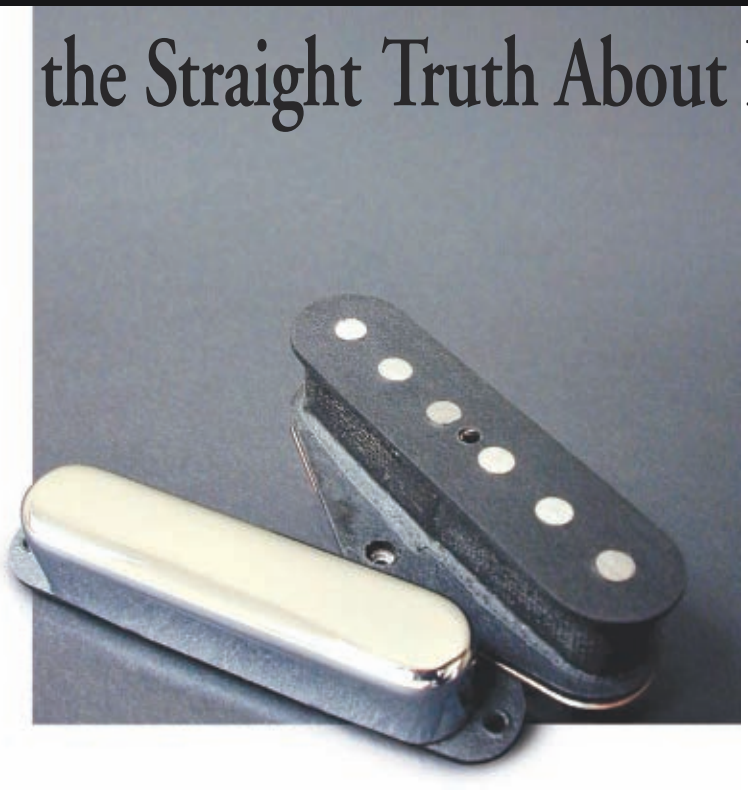
Tones	4½
Ease of Use	4
Build/Design	4
Value	4

PROS Superb mid-'60s British tones in a small package. Top-shelf retro-style parts.

CONS Minimal documentation.

LOLLAR PICKUPS™

the Straight Truth About Pickups by Jason Lollar

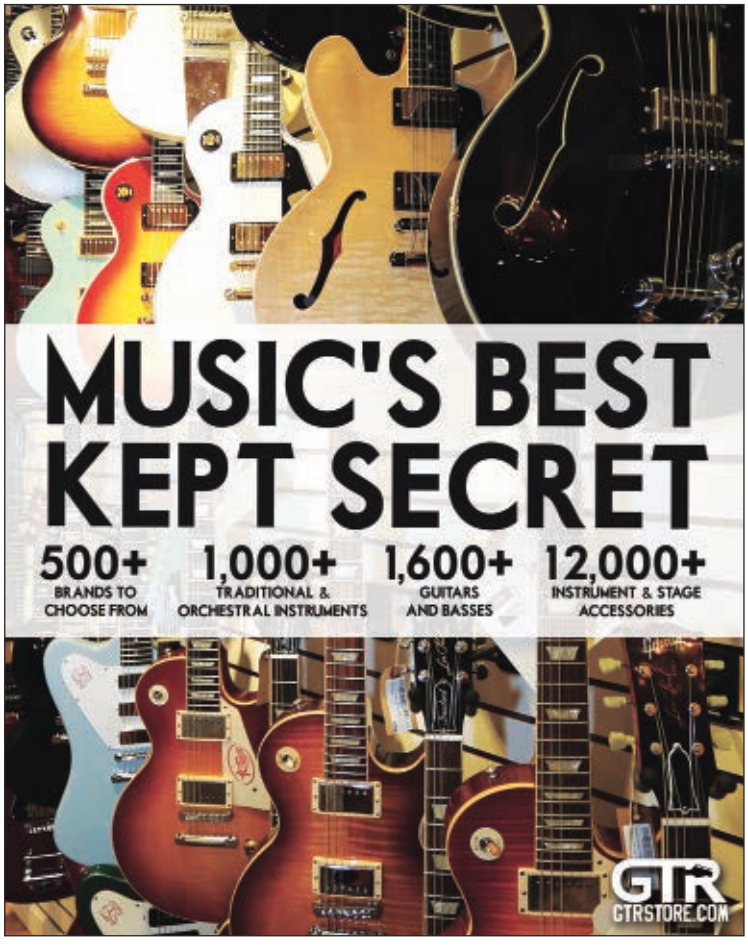


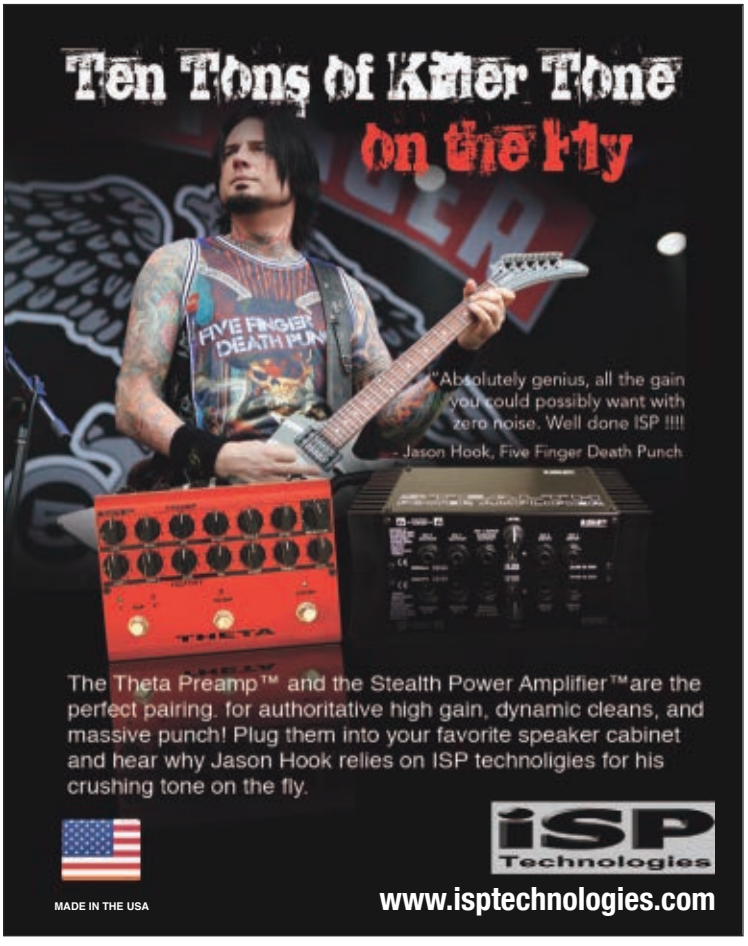
The "magic" found in some (but not all) classic vintage pickups was created by accident. Don't let anyone tell you different. And over time, some pretty stellar accidents happened. The only way to recreate that magic is to study more than a few exceptional examples of all the classic pickup types, while acquiring a thorough understanding of exactly what materials were used and precisely how each pickup was constructed and wound. Only then is the "magic" repeatable, if you are willing to spend the time and money required to chase the dragon. I am.

I personally design and wind over 30 different pickup models, including all the vintage classics, many obscure works of art known only to lap and pedal steel players like Robert Randolph, and even a few of my own designs that never existed in the past.

I invite you to visit our website for sound clips, videos and current product information, or call us for a free product highlight brochure.

Lollar Guitars PO Box 2450 Vashon Island, WA 98070 (206) 463-9838 www.lollarguitars.com





TUBE DEPOT

CLASSIC BRITISH 18W TUBE GUITAR AMP KIT 1X12

The parts. Tube Depot stocks their kit with quality parts, though they use many modern components. The capacitors match the original values, but in a smaller footprint. The higher-wattage resistors are carbon composite, but most are of modern metal film. The power and output transformers are from ClassicTone. The speaker is a British-voiced Weber 1230. The amp includes a footswitch jack for activating the tremolo, but no switch is included. (Two-speed trem switching is available as an optional mod.) The small parts arrive in dozens of little plastic bags. Tube Depot provides shielding tape, insulation material, and other performance-enhancers rarely included with kits. The modern, PVC-insulated wire comes in multiple colors, which helps clarify things while following the build instructions.

The build. Tube Depot amp kits stand head and shoulders above the competition in one key area: documentation. While other kits offer at most a schematic, a wiring diagram, and a few pages of build guidelines, this one includes a 52-page, full-color assembly manual. It's one of the clearest and most comprehensive instruction guides I've encountered, with every step explained and illustrated. Take it from someone who's done a lot of guitar-tech writing: These instructions represent an enormous effort on the part of Robert Hull of myamptech.com, who created them for Tube Depot. If you suspect you need detailed, step-by-step guidance to complete a successful build, this one feature may be enough to sway your purchase decision. You can download the docs for free from the Tube Depot site. Hull also created a YouTube video summarizing the build process (search for "TubeDepotTV 18W").

This wasn't my first amp build, but thanks to Hull's instruction, it was my best. Hull doesn't merely explain what goes where—his guide is chock-full of useful tips covering everything from the most efficient assembly sequence

WEBERFEST 2014

SATURDAY, AUGUST 2

5:00PM – 10:30PM

PERFORMING ARTS PAVILION
FOSTER PARK
KOKOMO, IN

FREE EVENT

WEBER SPEAKERS

FOR MORE INFO VISIT
WWW.TEDWEBER.COM/WEBERFEST

FOOD TRUCK EXTRAVAGANZA
5:00PM – 10:30PM

MEDIEVAL FESTIVAL
10:00AM – 4:00PM

FEATURING

CRACKER

WITH SPECIAL GUESTS

THE READY STANCE
CINCINNATI, OH

EASTHILLS
INDIANAPOLIS, IN

ANTHEMS
OMAHA, NE

MIKE MILLIGAN AND STEAM SHOVEL
KOKOMO, IN

mention this ad when you order and get 10% off

BROUGHT TO YOU BY

WEBER SPEAKERS · CITY OF KOKOMO · AACTION PROMOTIONS
THERMODYN HEATING AND AIR · DANIELS/ALEXANDER/DANIELS

to the fine points of "lead dress" (the fancy term for tidy, efficient wiring that doesn't look like a rat's nest). The circuit is intelligently laid out, with most passive components secured to the turret board, and relatively few awkward solder points and wire runs.

For better or worse, though, this is a labor-intensive build. For example, you must assemble your own turret board before mounting the components, as opposed to some other kits, which provide prefab turret board. Here you must tape a template to the fiberglass base plate, drill each turret hole, and then press-fit each turret into place using a hammer and an included tamping tool. If you want to learn new skills and have fun at the workbench, you'll probably dig the process. (I certainly did!) But if you just want an inexpensive amp in a hurry, you may prefer a kit with more pre-assembled components.

The amp took me two days to build—longer than expected, but mainly due to the fact that I was learning and practicing new build techniques and auditioning the optional mods covered in the documentation. It was time well spent, and when I finally fired up the amp, everything worked perfectly. Believe me—that's not how things usually go on my workbench!

It delivers the expected hallmarks of 18-watt tone: intense overdrive at relatively low levels, lots of treble excitement, and a simple yet singularly effective single-band tone circuit.

The results. The Tube Depot 18-watt amp looks great and sounds good. It delivers the expected hallmarks of 18-watt tone: intense overdrive at relatively low levels, lots of treble excitement, and a simple yet singularly effective single-band tone circuit. The response is exceedingly dynamic, cleaning up nicely as you roll back your guitar volume. Typically for an 18-watt, the amp doesn't exactly move the earth with its lows, though the Weber speaker sounds full and satisfying.

I incorporated two suggested mods: a post-phase-invertor master volume control (with a pot replacing one of the four input jacks), and a post-phase-invertor tone-cut circuit pilfered from the Vox AC30 (with a pot replacing one of the speaker out jacks). Both work great:

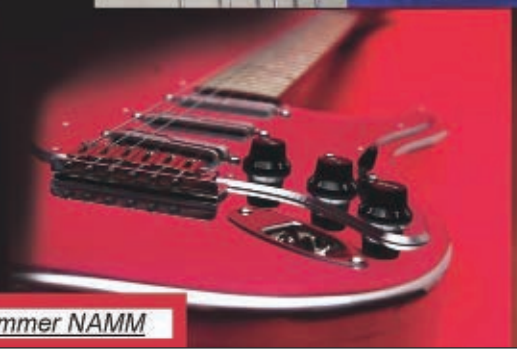
WWW.OZZTOSH.COM

CARVED FROM ALUMINUM BILLET

SONICALLY RICH, LASTING SUSTAIN

SOUNDS LIKE NO OTHER GUITAR

OZZTOSH LUMA



Hear the LUMA Summer NAMM

SWITCH FROM THIS... TO THIS...

ghost®

modular pickup systems

TRUE ACOUSTIC TONE AT THE FLICK OF A SWITCH!

Replace your current saddles with Graph Tech's ghost modular pickups and our Acousti-Phonic preamp and get instant access to true, acoustic tone from your electric guitar or bass, without altering your electric pickups. Play electric and acoustic with one guitar or blend them together for new and exciting tones. Easy plug-and-play installation with and clean hidden look. See and hear our ghost today.

www.graphtech.com/pg58 //// sales@graphtech.com

graphtech GUITAR LABS Changing The Way We Play!

The master volume provides surprisingly good high-gain sounds at low levels, while the tone-cut is tuned just right for nixing nasty overtones when playing at maximum gain. I recommend both mods for any 18-watt build.

CLICK HERE TO HEAR this amp at premierguitar.com/aug2014

RATINGS

Tube Depot Classic British 18W Tube Guitar Amp Kit

$849 street
tubedepot.com

Tones	4.5
Ease of Use	4.5
Build/Design	4.5
Value	4.5

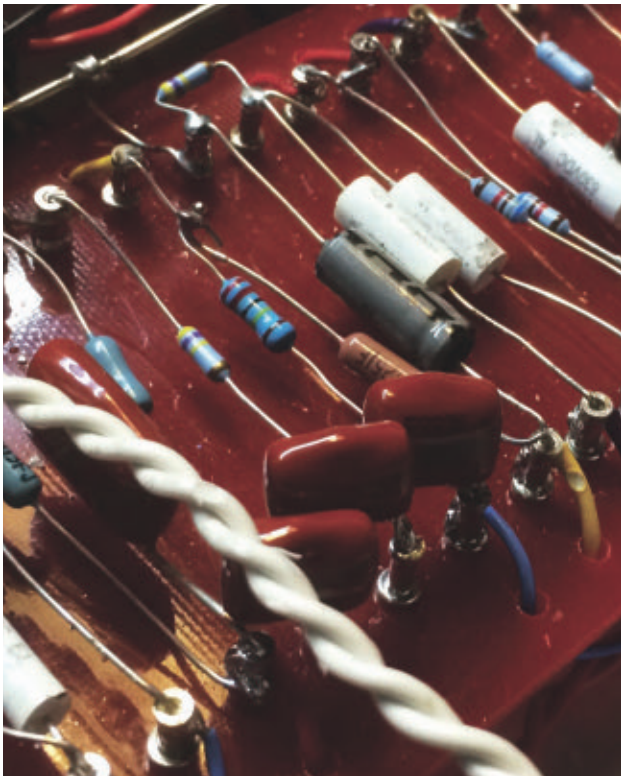
PROS Peerless assembly manual, including many cool mod options.

CONS Some parts might benefit from upgrades.

The verdict. I had a fantastic experience building both kits—or more accurately, two fantastic but different experiences. Which experience is best for you depends on your DIY motives.

I prefer the Mojotone's sound. There's more of a bell-like quality to the clean tones, and when you pour on the gain, everything resonates a bit more sweetly, with fewer harsh and chaotic overtones. It doesn't emit more low end per se, but the fundamental frequencies seem weightier. I dig this taut, focused character.

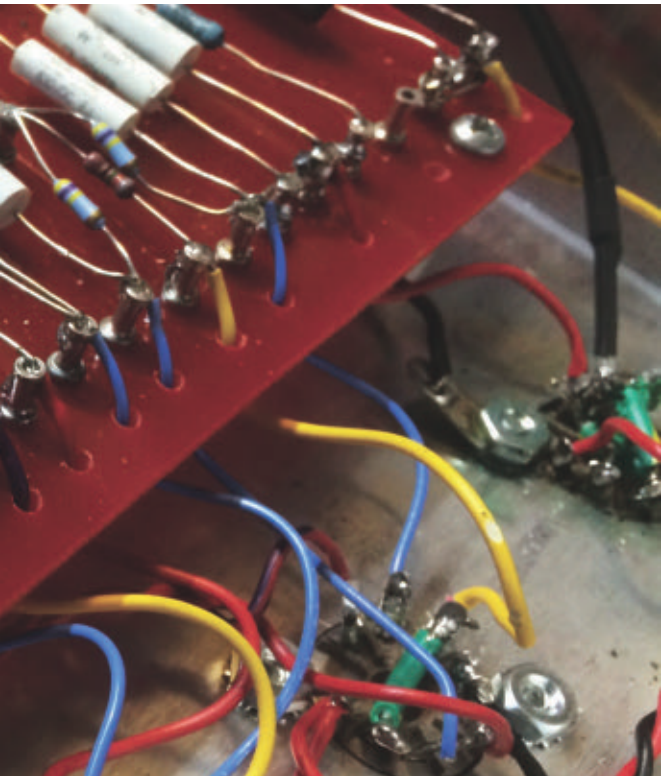
This is a subjective call, however, so judge for yourself: I recorded the audio examples for both amps through the same signal chain minutes apart, and even used a ReAmp to route identical performances through both amps. (If you're reading this in print, check out the online version of this article, which includes audio.) The Royer R-121 ribbon mic is situated in the same position for each amp. I even tried swapping tube sets between amps, and auditioning each amp through



Top: The Tube Depot kit employs modern parts, such as metal-film transistors, small-format capacitors, and color-coded, PCV-insulated wire.

Right: Tube Depot provides the parts, templates, and tools to build a turret board from scratch.

Inset: The kit boasts a superb assembly manual with many helpful tips, such as the optional mods shown here.



the other's cabinet and speakers, neither of which altered my impressions.

I attribute the sonic differences to internal components—but attempting to pinpoint *which* component is responsible for what is the sort of thing that launches flame wars on amp sites. Mojotone goes the extra mile to provide their namesake mojo parts, though I'll remain skeptical that cloth-covered wire, carbon-comp resistors, or large-format caps have perceptible effects on an amp's tone until I encounter repeatable audio evidence proving it. But most folks agree that transformers affect an amp's tone in a big way. My hunch is that I simply prefer the sound of the custom Heyboers in the Mojotone to Tube Depot's

ClassicTones. (For what it's worth, the Mojotone transformers cost twice as much. Conversely, the Weber speaker in the Tube Depot amp costs twice as much as the Mojotone speaker, though I like the sounds of both speakers about equally.) I'd love to hear the Tube Depot kit with upgraded transformers.

I had a fantastic experience building both kits—or more accurately, two fantastic but different experiences.

Meanwhile, stellar documentation makes the Tube Depot kit the superior learning and building experience. The techniques included here will improve not only your 18-watt build, but also any future amp projects. (They certainly helped me build the Mojotone kit!)

My time with these kits has only deepened my regard for this 49-year-old design. Not many amps impart such a strong sense of time and place. An 18-watt can really make you feel like you're playing a 1966 London studio session. By all accounts, Eric Clapton used a JTM-45 on his Bluesbreakers session, but to be honest, these 18-watts took me closer to that iconic squawk than most JTM-45s I've played. (I'd harbored doubts about Clapton's claim that he didn't use a Rangemaster treble booster on those dates for the simple reason that it *sounds* like a frickin' Rangemaster! But for the first time, I can imagine how a particularly fiery Marshall combo and lively, unpotted PAF pickups could conspire to produce that tone.)

The 18-watt is no chameleon—it's a singular circuit with a singular point of view, one applicable to most non-metal rock styles. It may have taken the guitar community decades to give this amp its due, but hey—better late than never!

Thanks to Robert Hull of myamptech.com and Kirkwood Rough of Upstairs Amps for spotting my build mistakes and protecting me from fire and electrocution.

Mod Mania

Even if your kit's documentation doesn't cover mods, you can still research and incorporate them. Here are a few popular mods for 18-watt amps.

The EF86 mod. You can substitute an EF86 preamp tube for one of the 18-watt's 12AX7/ECC83 tubes. It's not a direct swap—the EF86 is a pentode, not a triode, so it requires a different socket and different wiring. The EF86 appeared in some early Vox models and in their boutique descendants. Seeking something fresh, I tried the EF86 a few years ago in my first 18-watt build, Ceriatone's 18W TMB EF86 kit. It's a fine kit that turned out well, and the EF86 did indeed lend an effervescent, Vox-like quality. But I wouldn't wish that godforsaken tube on my worst enemy.

I should have believed what I read online: the EF86 is almost comically microphonic. I spent a small fortune on replacement tubes and tube-damping gizmos to get a remotely studio-worthy amp, and it's still too noisy for many applications. (An EF86 might work better in a head-only model, where it's not inches from a loud, vibrating speaker.) Proceed with caution.

The TMB mod. The original 18-watt amps had only a single tone control per channel: a low-pass filter to roll off highs. One popular option is to replace the single-band tone control with treble/middle/bass (TMB) controls voiced like those on the larger British amps of the '60s. I went that route on my Ceriatone build, and the tone section sounded fine—but did I need the extra controls? Probably not. While the ability to prune highs is essential, the 18-watt doesn't exactly suffer from an excess of bass, so I found little reason to manipulate the lows. The mids tend to sound fab as-is. The single tone control is simpler—and more fun.

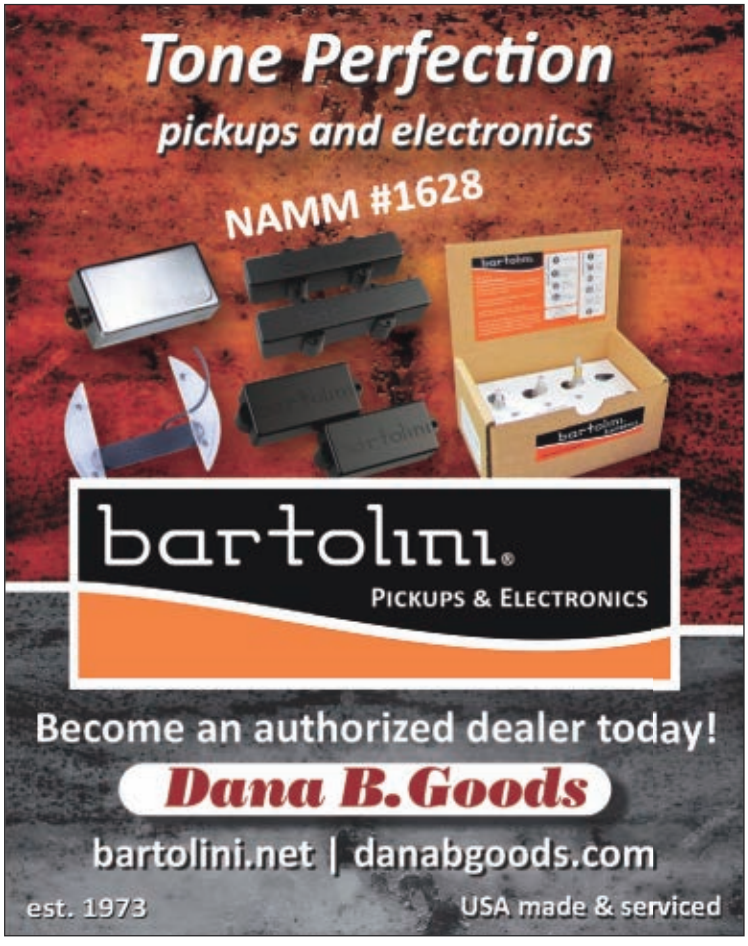
Master volume mods. Original Marshall 18-watt amps have no master volume or gain controls—just a single volume control per channel. A master volume can be a nice addition, especially if installed after the phase invertor, as described in Tube Depot's 18-watt assembly manual. That way, distorted tones lose relatively little impact as you dial down your volume.

Rectifier replacements. A tube rectifier is "the vintage way," yet many players prefer the faster, punchier response of a solid-state rectifier. You can also split the difference by replacing the default EZ81 with a GZ34, which tends to exhibit less tube "sag," though it requires different wiring and an octal tube socket. Tube Depot's 18-watt documentation covers such options, including a tube/solid-state toggle.

Dual tremolo-speed mod. Mojotone's 18-watt kit includes a two-button footswitch for activating tremolo and toggling between two modulation rates. You can add this dual-rate mod to any 18-watt build following the directions in Tube Depot's 18-watt documentation.

Tone-cut control. You can add a pot/cap pair after the phase invertor as a low-pass filter, siphoning off highs. This can be helpful for high-gain tones that get nasty on top due to particularly hot or bright pickups.

Providence
The Sonic Evolution of Signature Anadime Sound!!
Analog Chorus
ANADIME CHORUS
ADC-4
DEPTH
SPEED
MIX
DEEP
Providence
OUT
IN
DC9V
NEW
ANADIME CHORUS
www.providence-ltd.com


Tone Perfection
pickups and electronics
NAMM #1628
bartolini
PICKUPS & ELECTRONICS
Become an authorized dealer today!
Dana B. Goods
bartolini.net | danabgoods.com
est. 1973
USA made & serviced

19:1 RATIO UPGRADE TUNING MACHINES
KLUSON
AVAILABLE FOR 2-PIN, F-STYLE, CONTEMPORARY, OR VINTAGE IN NICKEL, CHROME, GOLD, OR BLACK LOCKING OR NON-LOCKING
WDMUSIC.COM/PREMIERGUITAR | 8004499348 | SALES@WDMUSIC.COM

Does My Mesa Head *Need* All Eight Power Tubes?

BY JEFF BOBER

Q: **Hi Jeff,**
I have a Mesa/Boogie Stereo Simul-Class 2:90 (circa 1994), which I play as quietly as humanly possible. It's way more amp than I need, though I do like the sound. This amp uses eight 6L6 power tubes, which is way expensive to re-tube, and the tubes produce a lot of heat. There are two rows of four 6L6 power tubes, one on top of the other.

My questions: Which tubes are turned off when the half-power switch is engaged? Can I rotate them to make wear more even, so the tubes last longer? Would these "disconnected" tubes still wear out? Is it possible to remove four of the tubes to save some money and reduce heat? If so, which ones?

Thanks for your many informative columns.

Rocco Franze

A: **Hi Rocco,**
I'll use four pictures to answer your question as clearly as possible. In **Photo 1**, I've divided the tubes into two sections. The group on the left consists of the four output tubes for channel B, and the tubes on the right are for channel A. The two tubes on the top row of each channel are used as half of the push/pull output stage, and the two at the bottom are the other half.

This output stage is what Mesa calls "Simul-Class," and the architecture can be broken down even further. One tube from each half of the output stage runs in standard class A/B mode, while the other is biased to run in a class A-type mode. Exactly *which* output tubes perform each task has varied over time due to production changes. This can be important if you want to run different types of tubes for class A and class A/B operation, so let's look at both layouts.

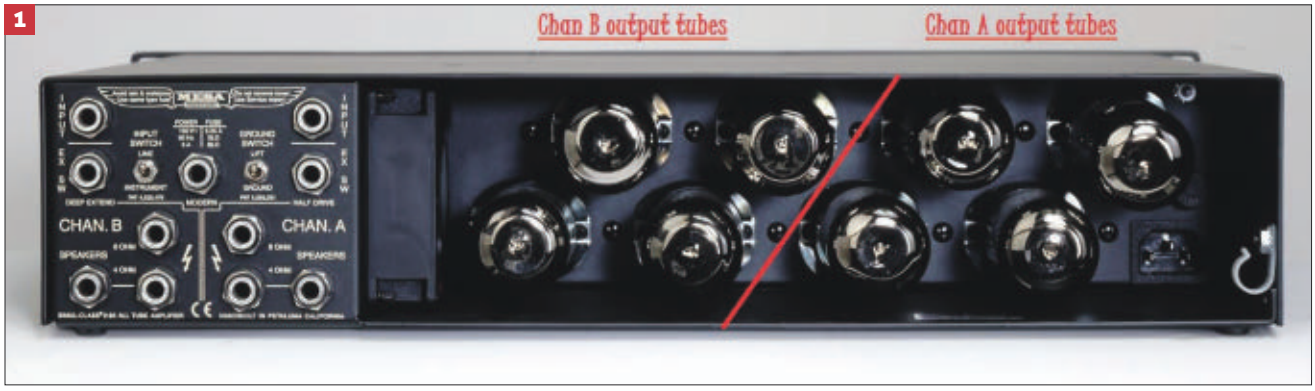
Photo 2 shows the layout for the older style Simul 2:90, which has a small blue pilot lamp on the front panel. Here we can see that the class A-biased tubes are located on the far ends of the layout, with the A/B counterparts occupying the middle four sockets.

Photo 3 shows the layout for the newer-style Simul 2:90. This model has a large red pilot lamp on the front panel. Things have changed a bit: While channel B's class A tubes remain the outside pair, channel A's class A pair has moved to the inside location. (In the older 2:90, the output tube sockets are handwired. In the newer 2:90, the output tube sockets are mounted on PC board, so this change may have been to accommodate identical PC boards for each channel.)

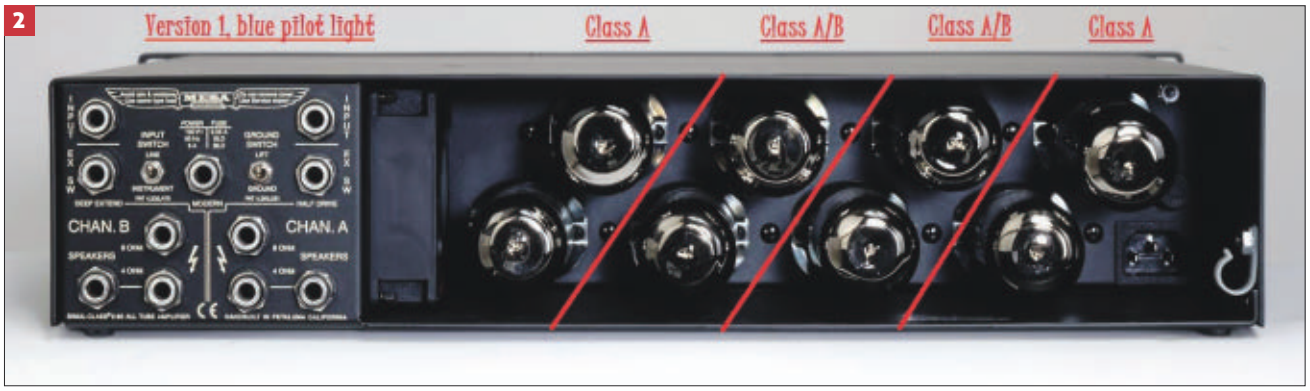
You asked which of these tubes is turned off in half-power mode. As you told me in a subsequent email, you've already learned this amp doesn't actually have a half-power mode—it has what Mesa calls "half-drive" mode. This is accessible only from the rear-panel jack indicated in **Photo 4**. This feature does not disengage any output tubes, but alters the driver circuit to supply far less signal to the output tubes. It may also

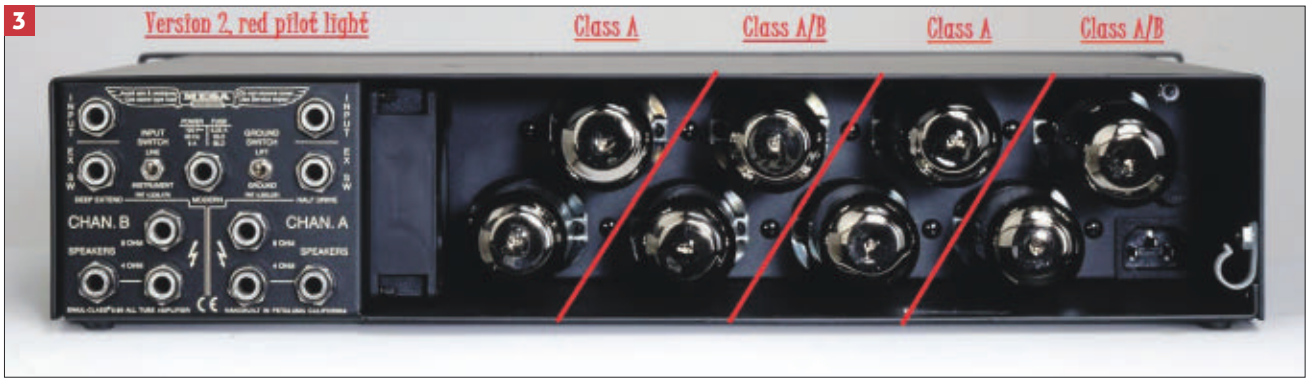
Removing four of the eight output tubes causes voltages to rise even higher, possibly leading to premature tube failure.

1



Photos courtesy of Eric Taylor (gearhounds.com)





cause the driver circuit to distort earlier, mimicking some output tube distortion. This means no tubes are turned off in this mode. Bummer.

Okay, here's where I *thought* I'd be saying you can simply remove the class A/B tubes and run the amp with the Class A sets, substantially reducing output power. But something told me to give my friend Mike at Mesa a call, and I'm glad I did. He strongly recommends against removing any tubes, and here's why: While electrically removing tubes from operation is exactly what happens in the Mesa Mark amps, the internal voltages in the 2:90 are higher. Though operation at these higher voltages under standard conditions is fine, removing four of the eight output tubes causes voltages to rise even higher, possibly leading to premature tube failure—especially with today's inconsistent tubes!

So unfortunately, you cannot remove any tubes from your amp. The best help I can offer has to do with heat. Since the class A sockets can support either 6L6 or EL34 tubes, I recommend using the latter. Because the fixed-bias voltage remains constant—and a 6L6 tube requires a bit more bias voltage than an EL34—this should slightly over-bias the EL34 tubes, making them run a bit cooler. Sorry I couldn't make things quieter, but at least we can cool off your tubes a bit.

WARNING:
All tube amplifiers contain lethal voltages. The most dangerous voltages are stored in electrolytic capacitors, even after the amp has been unplugged from the wall. Before you touch anything inside the amp chassis, it's imperative that these capacitors are discharged. If you are unsure of this procedure, consult your local amp tech.

JEFF BOBER, *is one of the godfathers of the low-wattage amp revolution. He co-founded and was originally the principal designer for Budda Amplification, though he launched EAST Amplification (eastamplification.com) in 2010. You can catch his podcasts at ampsandaxescast.com or email him at pgampman@gmail.com.*

Hammond's Leslie-in-a-Box

BY KEVIN BOLEMBACH

Many manufacturers have attempted to mimic the Leslie sound. This new stompbox from Hammond/Leslie themselves may have nailed it.

Many manufacturers have attempted to mimic the Leslie sound. This new stompbox from Hammond/Leslie themselves may have nailed it.

There's an old adage: "Ain't nothing like the real thing."

This saying holds particularly true in relation to guitar gear. Try as they might to emulate the sound and feel of the original item, there's usually some vital, indescribable element that's missing from digital simulations and even many analog recreations of classic gear.

In the world of effects, one of the hardest sounds to simulate realistically is a rotary speaker. A rotating speaker is part vibrato and part phase-shifter. Its sound, sometimes overdriven, is always lush and larger than life. A rotating cabinet is a physical presence that creates a powerful, pulsing aura in the very air around itself. If you've ever stood close to a Leslie at full-tilt, you know it can inspire feelings of awe and even trepidation as it shakes, rattles, and rolls like a living, breathing beast.

Over the years many companies have tried to shrink the might and majesty of these 150-pound behemoths into more portable formats. While many have claimed success (and a select few have actually come close), after careful listening we always seem to end up right back at the first sentence on this page.

Leslie at last? Thankfully, the engineers at Hammond/Leslie finally decided to throw their hats in the ring in an attempt to create the ultimate digital rotary speaker simulator in a convenient stompbox format.

Inspired by the success of the onboard digital Leslie in the Hammond SK1 organ, the 002-Leslie pedal aims to capture all the sound and soul of the genuine article without the backbreaking weight, cumbersome size, or costly maintenance.

At 7.5" x 4.5", the 002 is only slightly larger than your average effect pedal. It features stereo ins with a +6 dB gain-boost switch, allowing it to accept a variety of levels. Stereo outs allow routing to multiple amps or mixer channels.

At first glance, the 002's front-panel controls may seem a bit out of the ordinary compared to the standard stomper. But once you get your head around their functions, you'll find it quite simple to coax luxurious Leslie tones from just about any instrument or amp.

Cab control. Front and center on the pedal is the cabinet selector rotary switch, which chooses between four classic Leslie cabinet profiles: 122A, 147A, 18V, and PR-40. Each is modeled on the unique tonal qualities of its historic namesake.

Each cab simulation has preset rise and fall speeds that are accurate to the rotation speed of the Leslie model it's based on. The rise & fall control lets you adjust these speeds while preserving the original cabinet's high-to-low speed ratio. The distance control allows you to adjust the position of a virtual mic from zero to three feet from the virtual cabinet, as if you were listening at varying distances.

From here the controls get a bit more familiar, yet still retain Leslie-specific characteristics. The overdrive control emulates the beautiful, non-linear, dynamic distortion of the classic 40-watt tube front end of the Leslie 122/147 models. Turning it up adds a warm, subtle edge that breaks up more when the input signal increases. The mix control adjusts the balance between the treble (upper horn) and bass (lower speaker) rotors, while the level control sets overall output.

The 002 also has three footswitches: slow/fast toggles between the classic Leslie "chorale" and "tremolo" speeds. Brake decelerates the virtual rotors to full stop, while bypass disengages the effect. From subtle vibrato washes to full-on, dirty Texas organ tones, the 002 serves them up with stunning accuracy.

Best of all, none of the 002's settings sound overly bright or sterile like a chorus can, nor excessively modulated like many vibratos tend to be. There is a decidedly realistic quality to the 002's sound, and it's pleasantly analog-sounding for a digital box. The 002's effect never really goes over-the-top, but works like a real rotary, adding dimension to your sound.

The Leslie pedal proves that sometimes there is something like the real thing. Even better, it proves that you can get that "real thing" at a decidedly lower cost—and with less physical commitment—than ever before. For more info on the 002-Leslie visit www.hammondorganco.com.

KEVIN BOLEMBACH *is the president and founder of Godlyke, the U.S. distributor for many well-known boutique effect brands, including Maxon, Guyatone, EMMA, and Providence.*

Redesigned and better than ever!

LIFETIME WARRANTY
VISUAL SOUND

H2O™

Liquid Chorus & Echo

Extremely versatile analog Liquid Chorus

- Stereo Chorus, Vibrato, or blend
- Light, lush, Leslie, or pulsating out-of-this-world effects

Warm, natural delay

Pure Tone buffer on/off and separate Input and Output for each channel

- Change order of effects, patch in a loop,or use a switching system

Reliable and silent True Bypass with the custom designed Forever Footswitch™ rated for 10 million hits

VISUAL SOUND

REAL TONE FOR REAL PEOPLE®

VISUALSOUND.NET

Amp Accessories

Want to keep your favorite amp heads, cabs, and combos safe from car-door dings, gear-van avalanches, or just stray toddlers? Here are several options that run the gamut from soft and stylish to sturdy and, well ... rideable!

1
D2F COVERS
Designed 2 Fit

These padded amp and cab covers are made to exact specs for your gear using a custom 600x600 denier polyester for the exterior that's bonded to 1/4" foam padding with a soft-brushed nylon-tricot interior.

Street: $50 to $120

d2fcovers.com

2
STUDIO SLIPS
Clamshell Gig Bag

These water-resistant gig bags protect the entire amp with tough 1000-denier nylon canvas and thick, quilted padding. Available in many shapes with add-ons like accessory pockets and caster openings.

Street: Approx. $100 depening on size and options

studioslips.com

3
COVERAMP
Amp Covers

These handmade covers protect with a triple combination of 32-ounce synthetic leather, polyester, and vinyl. Made with 138-caliber nylon stitching.

Street: $50 to $85 without padding, $100 to $175 with padding

coveramp.com

4
ROAD READY CASES
RRGC12C

This adjustable case for 1x12 combos has high-density Z-Lock foam inserts for a custom fit, a low profile base for easy access, and rugged casters for easy transport.

Street $361

roadreadycases.com

5
SHARP COVERS NASHVILLE
Custom Gear Covers

Individually handsewn with cording on side seams, fully lined handle openings, and double stitching throughout for both style and durability.

Street $45 and up

sharpcoversnashville.com

6
PROCASES
Eurolite 6U Rack Mount Case
This six-unit amplifier case is built to last the abuse and rigors of constant gigging. It's constructed of 3/8" black laminated plywood, has chrome recessed handles and latches, and steel-ball corners for extra protection.
Street $140
procases.com

7
LECOVER
Premium Nylon Gig Cover
Constructed from water-repellent 900-denier nylon that's heat-laminated to 1/2" open-cell foam with a brush-tricot backing. Comes in black, orange, tan, and tweed.
Street: $50 to $100 depending on amp/cab model
lecover.com

8
SKB CASES
1SKB-720
This hardshell amp-head case with a foam-lined interior and a unique, expandable lid is meant to accommodate most common amp models. Other features include a built-in handle, wheels, and nylon cinch-strap closures.
Street: $230
skbcases.com

9
GATOR CASES
G-901
This amp-head case with wheels and a tow handle for easy transport features a ballistic-nylon exterior over its wood frame, side-carry handles, and an exterior storage pocket for pedals and other accessories.
Street: $190
gatorcases.com

10
GRUNDORF
ABS-RO416C
This four-space amp rack is constructed of 3 mm thick high-density ABS material for its shell and a heavy-duty aluminum extrusion. Features a pre-tensioned rack rail, a pullout handle, and two sets of recessed wheels.
Street $300
grundorf.com

Quick Hits

KEITH MCMILLEN
SoftStep 2 MIDI
By Joe Gore

Digital guitarists cheered when Keith McMillen Instruments introduced the original SoftStep in 2011. Until then, players seeking foot control for software amps and effects had to contend with large, clunky controllers, usually requiring MIDI-to-USB adapters.

The featherweight SoftStep connected directly to a computer's USB port. Its carbon-fiber construction and 14 "beer-proof" soft-rubber switches provided real-time control in a portable, powerful, and remarkably rugged package. You could use it in easy plug-and-play mode, or tweak KMI's dedicated software, which can perform tricks like assigning up to six gestures to a single switch. (Example: You might program a footswitch so that tapping it activates a virtual wah pedal, pressing and releasing controls the sweep, and rocking left to right regulates bandwidth.)

The new SoftStep 2 replaces the original's rectangular switches with ones shaped like plus signs, making it easier for guitarists without formal ballet training to execute those multi-gestural moves. Other refinements: faster response, brighter lights, and revised Mac/PC software.

TEST GEAR *"Parts" guitar with Fishman TriplePlay MIDI pickup, MacBook Pro, Apple MainStage software, various plug-ins.*

RATINGS

$299 street, keithmcmillen.com

Ease of Use	
Build/Design	
Value	

PROS Light, rugged, and powerful. Best USB foot controller?

CONS Deeper programming for geeks only.

EHX
Lumberjack Log Overdriver
By Charles Saufley

Before you have panic attacks trying to recall high school calculus, you don't need to understand the difference between a logarithmic and linear distortion curve to hear that the Lumberjack is a very different overdrive. What's remarkable about the Lumberjack is how readily it can move from (relatively) smooth to rude. The key to this dynamism is the mysterious log factor control, which gets progressively raspier as you turn it up. While adjustments to the boost control help you dial in more or less of your dry signal (and shape the distorted tones), the log factor adds distortion that, depending on your pick attack, can sound lyrical, fuzzy, and, at it's most extreme, like a little tweed Champ about to explode and go supernova. Keep in mind, though, if you like things really smooth, this probably isn't your OD.

TEST GEAR *Fender Jaguar, Fender Stratocaster with Custom Shop 1969 pickups, 1964 Fender Tremolux*

RATINGS

$60 street, ehx.com

Tones	
Ease of Use	
Build/Design	
Value	

PROS Unique overdrive to distortion tones. Responsive to pick attack. Dirt cheap.

CONS Can be unpredictable if it's your only OD.

CLICK HERE TO HEAR *this pedal at premierguitar.com/aug2014*

LOVEPEDAL

Hi Volt

By Jason Shadrick

The latest stomp from Michigan-based Lovepedal packs tons of gain into a relatively small package. The Hi Volt is a pedal that covers the medium- to high-gain spectrum and will push you into the realm of Maiden and Metallica without having to reinvent your rig. Housed in a tank-like enclosure, the pedal features a three-knob EQ along with gain and level controls.

I wanted to truly test the transformative qualities of the Hi Volt, so I used a Mexican-made Fender Telecaster into a stock Fender Twin reissue—a decidedly non-metal setup. As the gain eclipsed 4 o' clock, the tone was saturated and thick, but naturally a little bright. The EQ controls allowed me to tame the shrillness but keep plenty of the definition. Even with a staggering amount of gain, the Hi Volt responded very well to pick dynamics and my guitar's volume knob. If you aren't a member of the metal fraternity but need more than a Tube Screamer amount of gain, the Hi Volt would be worth a ride.

TEST GEAR *Fender Telecaster, PRS SE Zach Myers, Fender Twin Reverb Reissue and Orange TH30 amps.*

RATINGS

$225 street, lovepedal.com

Tones	
Ease of Use	
Build/Design	
Value	

PROS Wonderfully saturated hi-gain tones with tons of headroom in a simple package.

CONS Could use a more subtle mid control for scooped tones. A bit pricey.

CLICK HERE TO HEAR *this pedal at premierguitar.com/aug2014*

KORG

Rimpitch Tuner

By Rich Osweiler

Korg's new Rimpitch moves clip-on tuner duties from the headstock to the soundhole. It's svelte and light, and it slips onto the lower edge of most standard acoustic guitar soundholes. (The Rimpitch fit my dread perfectly, but not my parlor, due to its bracing pattern.) Tuning is easy and accurate, and the bright indicator lights serve well on a dark stage. The tuner definitely offers a comfortable viewing angle compared to headstock tuners. That said, its mounting location may not be ideal for heavy-handed strummers, who might catch it with a pick and knock it into the soundhole. Also, the fixed-pitch indicators only work with standard tuning, so Rimpitch isn't a good choice for 12-string players or those who rely on alternate tunings.

Tuning is easy and accurate, and the bright indicator lights serve well on a dark stage.

TEST GEAR *2005 Larrivee parlor, 1974 Washburn dreadnought*

RATINGS

$25 street, korg.com

Ease of Use	
Build/Design	
Value	

PROS Discreet. Accurate. Comfortable viewing angle.

CONS Not the best option for aggressive strummers or alternate-tuning fans.

RUOKANGAS
Mojo King

By Shawn Hammond

I first heard of Ruokangas Guitars when *Premier Guitar* covered the Pinkburst Project, a charity for which Twisted Sister guitarist Jay Jay French commissioned an array of pink guitars and amps. Amongst the iconic instruments from Gibson, Gretsch, Martin, PRS, and more, Finnish luthier Johan Ruokangas' name was noteworthy as much for its unfamiliar origins as its inclusion alongside world-renowned brands.

When I had a chance to talk to Ruokangas and see his guitars at Musikmesse last year, I understood why French had become a fan: Juha is a passionate, adventurous builder with an admirable dedication to using locally sourced materials. Of all the Ruokangas designs I saw at the Frankfurt show, the Mojo King stood out most: The T-style outline sports a Bigsby vibrato, a series switch for a circuit that has a P-90 neck pickup and T-style units in the middle and bridge positions—the latter also features a steel "Twang Ring" surround intended to impart the sonic properties of a vintage Telecaster's ashtray bridge.

Fit for a King

You don't have to look long to see the Mojo King is something special. The chambered alder body's immaculate "silver moon" finish, the matching sculpted headstock, and the space-age vibe of the etched pickguard look simultaneously classic and unique. And from the bridge's individually adjustable saddles to the guitar's switches, jack, knurled knobs, and tuners, the Mojo King's components are clearly chosen for their quality.

But the neck is what did it for me. Not because the pocket is virtually airtight, but because in 30 years of playing guitar, it stands out as the most comfortable and inviting I've ever encountered. I'm typically not that picky: If I can get my hand around a neck and not end up bleeding from jagged fret ends, I don't complain much. That said, I'll probably always remember the sensuously smooth finish and expertly rolled edges of the Mojo King's neck. It's a luxurious, effortless feeling neck that rivals the neck on my old Hamer Korina Vanguard.

The Mojo King's electronics are upscale too. Its pickups are made to Ruokangas specs by Europe's most respected winder, Harry Häussel. The neck unit is a humbucker-sized P-90 that looks a little like an old Gretsch HiLo'Tron. The angled middle pickup is reportedly inspired by a Fender Broadcaster pickup and features alnico 3 magnets, while the T-style bridge single-coil uses alnico 5 mags.

Court of the Tone King?

When I tested the Mojo through a 6V6-powered Rivera Venus Deux and a brutishly British-sounding Jaguar HC50 running in tandem with a Goodsell Valpreaux 21, I was surprised in multiple ways. For starters, though so many of the MJ's features seem explicitly intended to capture the raw, twangy tones of the Fender's first electric, it excels most at more Strat-like sounds. When the Mojo King is running clean (or semi-clean) it conjures lush, airy, three-dimensional tones. The P-90 is thick and warm but retains a bell-like character, shaming P-90s that veer into grinding corpulence like wannabe humbuckers. The Broadcaster-inspired middle pickup is brawny and chiming, with discernibly rounded trebles, and the 5-way selector's second and fourth positions deliver clucky tones perfect for funk grooves, jangly strumming, and rich rhythms that can hang with any good Stratocaster.

All these tones are generated with the upper-bout series selector in the downward position. How do the things sound when you pull the switch up? It gives the Mojo King a little more beef—but at the expense of the guitar's liveliness. Everything has a little more power, but it also makes everything feel more indistinct. There wasn't a single setting in which I felt the trade-off of power for chime was worth it.

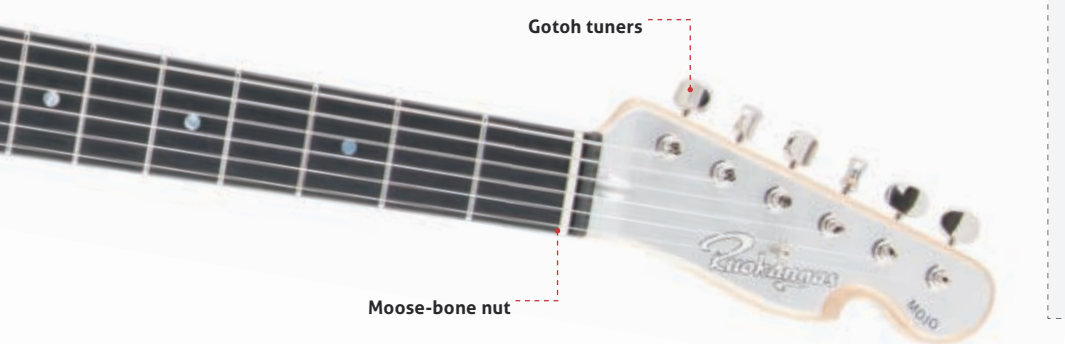
Perhaps the Mojo's biggest surprise is that, for all its efforts to capture vintage Tele twang, it comes up short on some essential Telecaster strengths—especially when you're going for grit. Click to first position and bust out your favorite chicken-pickin', rockabilly, or garage-rock licks, and the attitude is just a little lacking. Dig in, and instead of compression and wiry snarl, you get a slightly harsh, unforgiving response. Overall, the results are more like what you'd get from a really refined Strat tuned for noise-free clean tones—a guitar too concerned with manners to get loose. I was also stumped to find that the pickups do not perform as well when driving a dirty signal, be it a wound-up amp or a clean one with an overdrive pedal out front. There's an almost hi-fi-like character to the Mojo King that makes it thrive below the grind threshold but lose some magic when moderate gain or external compression is added to the equation.

The Verdict

Life is full of surprises—some are inconsequential, some are annoying, some are devastating. The Ruokangas Mojo King ends up being for you is bound to be a mixture of some or all of the above. If your interest is piqued because of its seductive T-style form and appointments, you may find yourself a little confused. The MK won't take you to the honky-tonk or an indie/garage-rock rave up as readily Leo fender's iconic single-cut does. But what it lacks in T-style twang it largely makes up for with positively addictive clean textures.

If you're hell-bent on having the best of Juha Ruokangas' building genius *and* your Bakersfield-approved tones, I'm certain your favorite set of pickups and/or some one-on-one consultation with Juha will remedy the situation. The Mojo King's neck will surely have even the pickiest fretters drooling. What's more, I'll venture that the execution, materials, and superb construction on this beautiful T-style will knock out any boutique guitar collector on the planet.

CLICK HERE TO HEAR this guitar at premierguitar.com/aug2014



RATINGS

Ruokangas Mojo King

$5,500 street
ruokangas.com

Tones	
Playability	
Build/Design	
Value	

PROS Incredible playability, craftsmanship, and attention to detail. Fantastic clean tones.

CONS Lacks traditional T-style twang and attitude. Doesn't take to overdrive, distortion, or compression well.

FENDER
American Deluxe Dimension Bass IV HH

By Steve Cook

When you work for the company that invented the electric bass and has long been manufacturing the two most revered and copied bass models *ever*, what do you do next? Fender's classic designs have stood the test of time and remain the go-to axes for literally countless bassists, however others have not been as widely cherished. Such was the case with the Modern Player Dimension bass that was released about 10 years ago. It was a radical design departure for Fender and went away quietly after three years.

It's now 2014, and a new series of Dimension basses has made its way to market. The series is a move by Fender to blend a lot of popular components into a forward-thinking design, and appeal to players who want a more modern direction than a P or J. Here, we take a look at the American Deluxe Dimension Bass IV HH.

The 'Buckers Start Here

Our Dimension tester arrived in a very slick (and TSA-certified) ABS molded case. I was instantly smitten when I opened it up. If first impressions mean everything, this blonde beauty had a lot going for it out of the gate with its maple fretboard and beautiful ash body that's finished with gloss polyester. Bonus: The case candy includes strap locks, a cable, and a strap—pretty much everything you need outside an amp to start playing.

The instrument is appointed with some very interesting features. The first eye-catcher is the pair of humbucking pickups (hence HH) that tells us right away this is not a traditional Fender bass. The 3-ply pickguard has a sweeping look similar to a Fodera Yin Yang, and Fender has upped the ante in the bridge department with a high-mass bridge. Knurled flattop knobs

control the volume and 3-band EQ, and pickup selection is performed with a 5-way switch.

Flipping the bass over, I found the 5-bolt offset neck heel and the battery panel for the 18V pickups. I personally prefer tabbed battery covers for convenience, however Fender made the drives on the screws wide enough for a coin to fit so there's no need to scramble for a screwdriver if you have some change in your pocket.

The Dimension arrived from the factory with low action and its oil-rubbed, asymmetrical C-shaped (thinner on the treble side, thicker on the bass side) neck is very fast. The bass felt pretty great overall, but the frets did have some sharp ends to them in the upper register and needed a bit of dressing. It's nicely balanced and doesn't dive when strapped up, and this bass really sings even without an amp.

But enough of the acoustic test. The striking dual humbuckers (and the dizzying amount of tonal control on tap) needed to be heard. For this review, I listened to the bass through a DAW and utilized some of my favorite amps in AmpliTube 3.

Added Dimensions

The pickup configuration is a little confusing at first but ends up making perfect sense once you cycle through the options. Each pickup is divided by its two rows of coils. By selecting the 1st position (from the bottom up) on the 5-way switch, both coils of the bridge pickup are engaged. The next position engages the inner coils of each pickup. The bass is at full bore in the middle position with all four coil rows employed. Just the outer rows are active in the 4th position, and in the final position, we are soloing the two coils in the neck pickup. The 3-band EQ is active in all five positions and all the pickup combinations are hum canceling.

I ran the bass through its paces up and down with the selector switch, and found that the Dimension falls somewhere between vintage tones and modern shimmer. As a fingerstyle player, the 5th position was my favorite by far. It has a single-coil sense to it and the tone breathes and booms at the same time.

The StingRay-esque pop is there when the selector is in the 3rd position with both humbuckers rocking. Slaphappy I am not, however it wasn't terribly hard to launch into fits of fast riffs and overplaying—good tone is inspiring. I'd be curious to hear this bass with the rosewood fretboard option for some added warmth. I was expecting that the bass would capture the more traditional tones we've come to know from Fender, but it's just not that kind of bass. Don't get me wrong: This bass sounds really darn good. Fender just decided not to crossbreed with their mainstays.

What impressed me the most about the Dimension is how *many* tones I could get out of it. The switching options between pickup coils is great, and when combined with the boost/cut properties of the EQ, you can tame the high end, or add some mid-range pop in a flash. Because you have a lot of tonal range with which to experiment, just dial in a little more or less of what you want if the pickup phases don't suit you. The only drawback to the 5-way switch is its location: A heavy-handed player could potentially knock it out of position.

The Verdict

There is really only so far any company can go with bass design before overlay occurs. Design is so often a variation on a theme—not a bad thing by any means—and the all-new Dimension is no exception. Its body shows influence from an Ibanez Musician and a Gibson Victory, the truss-adjustment style from a Music Man, and the headstock from, well themselves. The Dimension is a cool and different offering from Fender that certainly separates itself from Precisions and Jazzes, but I appreciate that they didn't go as far as doing something different with their iconic headstock like they did with the previous Dimension models.

As bassists, we generally don't have this many tonal options available to us in one instrument. This instrument is pricey at a couple clicks under two grand, but there is a lot of tone on tap. So if you want a quality, well-constructed, U.S.-built bass from Fender that *isn't* a P or J, but has the same legacy and guarantee—*and* you have the cash to spend—you might want to give a serious look at the Dimension.

CLICK HERE TO WATCH this bass at premierguitar.com/aug2014

RATINGS

Fender American Deluxe Dimension Bass IV HH

$1,699 street
fender.com

Tones	5
Playability	4
Build/Design	4
Value	4

PROS Excellent tones, modern pop, compact body.

CONS Pricey. Upper register frets on test model needed some dressing.

Stand tall. Get ENGL.

When you plug into an ENGL and see those backlit power tubes glowing, you're tapping into 30-plus years of amplification expertise.

ENGL introduced the first-ever programmable tube amp in 1984 and they've been pushing the envelope ever since.

Each ENGL amplifier delivers sonic flexibility, great dynamics, fast response and raw power. And, of course, the German-made quality and reliability that makes ENGL the ultimate tone machine on stage and in the studio.

That's why artists like Bumblefoot, Ritchie Blackmore, Steve Morse, Paul Stanley, Marty Friedman, Christian Martucci (Stone Sour) and Gary Holt (Exodus/Slayer) rely on ENGL. You deserve great tone too. So stack the deck in your favor and dominate…with ENGL.

VELVET DISTRIBUTION
velvetdistribution.com

ENGL
engl-amps.com

JULIET COLLECTIVE
Orangecream

By Matthew Holliman

The influence of Eric Clapton's *Disraeli Gears*-era tones spans generations. Weeping, soaring, and oh-so emotive, those sounds combine fluid B.B. and Albert King phrasing with raging SG, Marshall, Fuzz Face, and Cry Baby wah. Getting Clapton's tones without that gear isn't easy, and playing loud tends to be an essential part of the formula. Most gearheads would tell you to get a good fuzz and a stack, but the Juliet Collective believes they have another answer: a distortion called the Orangecream, which uses two parallel clipping stages—a hard-clipping fuzz section and a softer distortion stage—to approximate Clapton's Fuzz Face-and-Marshall blend.

A Steel Keg

The Orangecream's cylindrical enclosure evokes the flying-saucer-shaped Fuzz Face, a welcome throwback to the days when effects pedals didn't all have the same rectangular shape. The footprint doesn't differ much from that of the Dunlop's recent Fuzz Face Mini, though the pedal is taller. You can power it with a 9-volt battery or a standard power supply, though you need a metric wrench to open the enclosure and replace batteries. Inside is a floating PC board housing 2N2222 transistors.

Two knobs control the output. The left-hand one adjusts the crunch range, with higher settings tightening the bottom end and yielding a spikier attack. The right-hand knob smoothes the output when turned clockwise while acting as a master volume.

Attack is quick and precise with a top-end fizz that complements a Les Paul's naturally bassy character.

Clapton in a Can?

If you *really* want Clapton's Cream tones, you've got to go with humbuckers, so I auditioned the Orangecream with a Les Paul. In front of a '60s Fender Bassman (with the Orangecream's crunch knob nearly maxed and sustain at about 4 o'clock), the attack is quick and precise, with a top-end fizz that complements a Les Paul's naturally bassy character. Rolling back the crunch emphasizes the low-end—a great setting for rhythm, though lead dynamics could become a bit lost in a loud band.

Switching to an Orange Rockerverb 50 MKII amp, I paired the Orangecream with a selection of Fender single-coils. Dirty

amp settings aren't the best match in this situation—a dirty Orangecream setting through a dirty amp tends to squash the interesting overtones that the Orangecream delivers in spades. But a mildly overdriven amp handles the Orangecream well, and single-coils let me ride the pedal's crunch harder without sacrificing amp gain or obscuring the low end. High crunch and volume settings on the Orangecream yield aggressive, filthy tones reminiscent of a germanium Fuzz Face with the fuzz and volume controls wide-open. It's here that the Clapton associations start to make sense. Vintage Gilmour fans will also dig these tones, especially with some added delay.

My last test amp was with a VHT Special 12/20 RT. This open-back combo setup didn't reveal any unexpected nuances, though it did magnify a one concern some players may have with this pedal: the fact that even maxed out, levels are only marginally louder than unity gain. (In this regard, the Orangecream resembles the original fuzzes that inspired it.) You might need to add an additional boost pedal to get your guitar way out front for a big lead.

The Verdict

The Orangecream may not be a vintage circuit (at least not 1967-style vintage), but its parallel clipping stages deliver the muscular and vocal qualities of the classic '60s Marshall-fuzz-and-humbuckers recipe with surprising effectiveness. It responds best through a clean amp with ample headroom, but works equally well with humbuckers and single-coils. Its ability to toe the line between fuzz and distortion yields unique sonic results that should intrigue many fuzz and distortion freaks.

CLICK HERE TO WATCH this pedal at premierguitar.com/aug2014

RATINGS

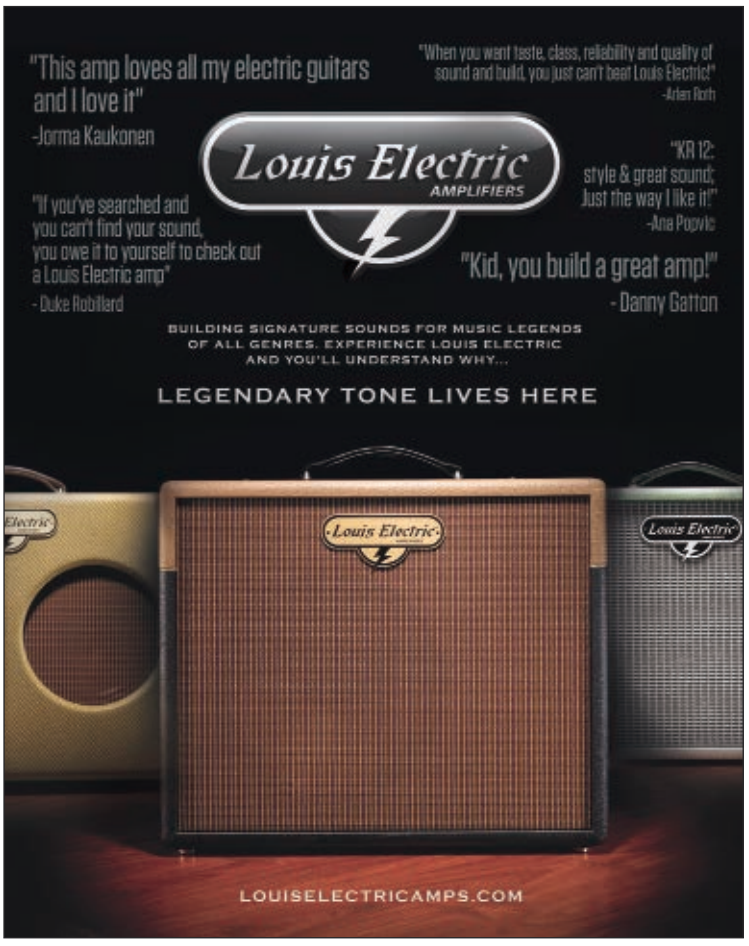
The Juliet Collective Orangecream

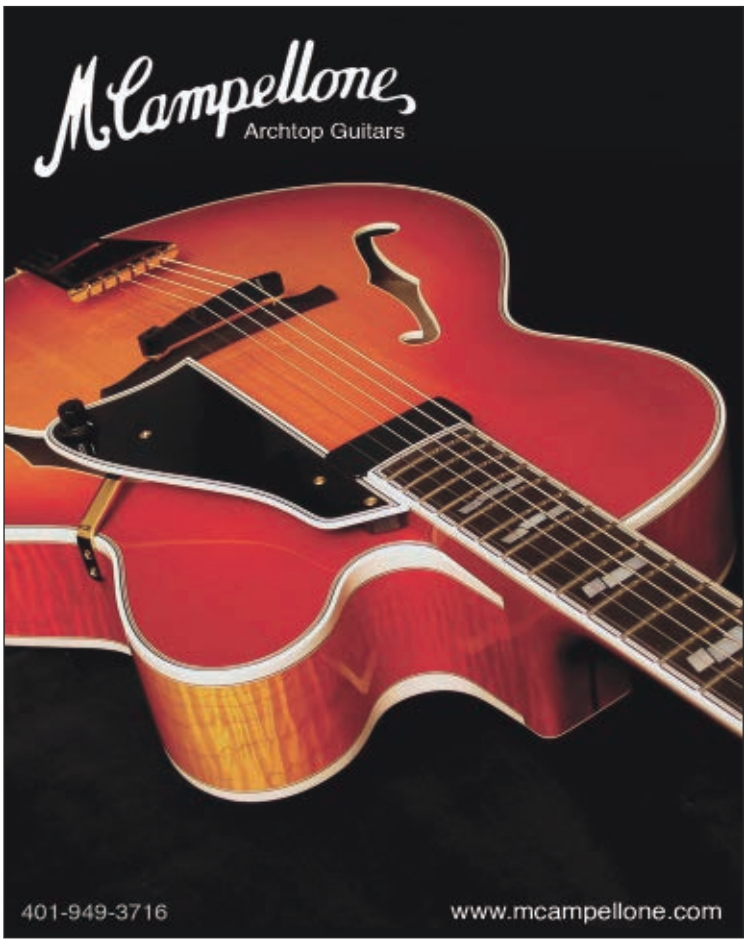
$150 street
thejulietcollective.com

Tones	4.5
Ease of Use	4.5
Build/Design	4.5
Value	4

PROS Cool vintage-flavored fuzz/distortion.

CONS Not much volume available past unity.





Want Less?

H9 CORE

H9

Now, you can purchase an H9 Harmonizer® for less. H9 Core includes pristine pitch and delay effects from the original Harmonizer studio processors, H910 and H949.

Whether you choose the standard H9 (factory loaded with algorithms from the acclaimed TimeFactor, ModFactor, PitchFactor, and Space stompboxes) or the new H9 Core you can customize your Harmonizer with your favorites from our growing catalog of magical algorithms.

It's your choice. Both H9 and H9 Core feature the same world-renowned Eventide sound in a compact package. Try out H9 Core or H9 at your local Eventide dealer or download the demo H9 Control app for PC, Mac, or iOS.

FREE ALGORITHM with purchase

BUY ONCE
ALG
ALGORITHMS

FREE H9 CONTROL APP
OSX, WIN & iOS

Eventide®

iOS

Eventide and Harmonizer are registered trademarks of Eventide
All other trademarks are the property of their respective owners. ©2014 Eventide Inc.

http://bit.ly/H9Core

Uncomplicated Wireless.
Pure Tone.
intellitouch
FREEDOM ONE
Pedal Tuner & Digital Wireless in One.
wire less. rock more.™
© 2014 OnBoard Research Corp.
www.OnBoardResearch.com. Monte Montgomery by Sean Berry.

mtd
KINGSTON
SERIES
Michael Tobias Design
Built for working musicians - basses and guitars
See us at NAMM #1628
Dana B. Goods

facebook.com/wamplerpedals
wamplerpedals.com
Latitude
WAMPLER
PEDALS
HANDMADE IN AMERICA

PREMIER GEAR

RIVERA
Venus Deux

By Shawn Hammond

In the late '70s and early '80s, Fender was in a tight spot. The period of CBS ownership from '65 to '85 is notorious for having adversely affected the house that Leo built. Some of that stigma is unfair, but there's no denying that in the budding digital age the juggernaut was increasingly viewed as a sleeping, outdated giant. In the amplifier realm, no company made that point more painfully than Mesa/Boogie, whose hot-rodded designs with cascading gain, dual-function knobs, and graphic equalizers were winning over fans in every genre.

In an effort to modernize and compete, Fender revamped its blackface amps with handwired models that aimed to offer revered Fender clean tones *and* modern, higher-gain sounds. The man behind the best of these designs was Paul Rivera Sr., and today amps such as the Super Champ and Concert are still prized by amp aficionados in the know.

Since the mid '80s, Rivera Sr. has been running his own boutique amp company. His line has always been diverse—from the Sedona 55's dual-channel design for electric *and* acoustic-electric guitars, to the punishing, MIDI-controlled KR7 head for Slipknot guitarist Mick Thomson. But for the last few years, Rivera has put particular emphasis on its Venus series, which aims to put a lot of versatility into an oft-overlooked niche: classic-voiced 6V6-powered heads and combos. The latest, the Venus Deux 1x12 combo, serves up 25 watts of delicious tone in a single-channel design with footswitchable reverb and just enough fancy features (including a series effects loop) to make it a fascinating option for those who'd like blackface Princeton- and Deluxe Reverb-like tones—only with a lot more versatility.

Beefy Beauty

The Deux is hand-soldered at Rivera's shop in Burbank, California. Its chassis, transformers, and cabinet are all made in the U.S., and the custom Rivera speaker is voiced to sound like a cross between a Celestion Vintage 30 and the more modern Celestion G12T-75. Internally, the Deux features printed circuit-board construction with 16-gauge copper-plated wiring, and the preamp and power tubes are mounted on separate boards.

When you first lay eyes on the Deux's comfy handle and relatively modest dimensions and control panel, you might be tempted to think it's a lightweight. But it's not, in any sense of the word. For starters, at 48.5 pounds, it's heftier than you'd expect. Secondly, its feature set is incredibly flexible while still affording the type of simplicity that fans of classic 6V6 tones typically crave. With treble, middle, bass, and presence knobs, the Deux offers much more precise tone shaping than vintage designs' usual bass-and-treble controls, and that's before you even factor in its three push-pull functions—but we'll talk about those in a minute.

The Deux also features a very handy focus knob. Rivera has offered this speaker-dampening feature since the debut of the TBR amp series in 1985, but that's no reason to not tip our hats

to it here. At low settings, you get the looser, more broken-in vibe of a vintage Deluxe or Princeton, but as you turn it up you get a tighter, more robust sound. It's not a super over-the-top effect—you won't go from, say, the spacious sound of an old Deluxe Reverb's wider open-back cab to a chest-thumping closed-back sound—but the nuances between the knob's extremes are very effective. When you crank it for more resonance, you can hear how the cab's deeper dimensions help project more punch and oomph.

Okay, back to the dual-function knobs: Pull the treble knob, and the bright function adds a shimmering quality at low volumes. Meanwhile, the focus knob's "fat" function enhances even harmonics in the power amp for a smoother sound with less bite. But the real showstopper is the middle knob's notch function. When we hear talk of notched mids, we tend to think of scooped metal sounds, but that's not what happens with the Venus Deux. Engage the notch function, and the amp goes from a Marshall- or Bassman-like 500 Hz scoop to a blackface-like 250 Hz dip. It's an astounding effect that absolutely transforms the amp. More on that later.

V for Velvet

One of the points Rivera is touting the most with the Deux is that its clean headroom—"the maximum possible in a 25-watt class AB amp," according to Paul Rivera Jr.—makes it an ideal platform for pedals. But what really floored me when I first plugged in was the surprising rush I got with nothing but a cable between my Telecaster and the Venus. It's been a while since I completely bypassed my board of six or so pedals, and the experience was a much-needed reminder of the joys of straight-up guitar.

Whether I engaged my Tele's bridge pickup or its Jazzmaster neck pickup (both by Curtis Novak), or plugged in a Ruokangas Mojo King, or a Danelectro 59-M-NOS, the tones were chimey and complex, but in more shades than you can get from most 6V6 amps. And with a Gibson Custom Shop Joe Bonamassa Les Paul with Burstbucker pickups, the amp can churn out positively primeval rock and blues tones with bristling harmonics and near-infinite sustain.

However, the headroom issue has to be considered in the overall context of low-wattage 6V6 amps: They've never been associated with headroom in the same sense as, say, a 6L6 circuit like a Twin Reverb or a modern channel-switching design. That's because their primary allure is texture. Whereas a low-power EL84 amp tends to go from hard and glassy at low volumes to more jagged and biting as you increase gain, 6V6 amps usually go from soft and velvety to plush and spongy. Contrasted with a nice EL84 amp that lets you paint a room in progressively stark contrasts of color and light as you push the volume, the Deux's 6V6 power section goes from elegant damask wallpaper in dulcet tones to rich tapestries in red, purple, and blue. In other words, the Deux is sweet and snappy, with a fine-grained texture up to the volume knob's midpoint, and from there it gets increasing corpulent in a way that wailing blues hounds will love.

With the Venus' volume at 5 or 6, treble at 5 1/2, middle at 4 1/2, bass at 6, presence in the upper 1/3 of its range, and none of the push-pull features engaged (i.e., with the blackface sound), I was able to get spanky Tele tones and Strat-like cleans from the Ruokangas, and if I wanted more bark I could hit the front end with my Pigtronix Fat Drive for varying shades of dirt. That's where the Venus' heralded headroom comes into play in the most versatile sense: Slam the Deux's input with a pedal and you can get howling, classic-rock ghost notes from fat neck pickups, or roll back your guitar's volume for spanky in-between funk tones or toothy bridge-pickup skankiness, all with lush responsiveness and clarity when you roll off your guitar's volume. I kept reverb between 5 and 7—I'm kind of a reverb junkie—but I was a little bummed that extreme surf-worthy settings somewhat annoyingly emphasized tinny treble frequencies.

When I engaged the middle knob's notch function, the Venus went from plush and inviting to delightfully brash and flippant when you need it to be—it completely changes how you'll want to EQ things. With volume at 7 1/2, treble at 4 1/2, middle at 5, bass at 7 1/2, and focus and presence at minimum, the Deux defied both its size and power section with tones that were both much larger feeling and much more badass—in a blazing tweed-amp sense—than what you'd expect from a 6V6 amp. With humbuckers in the mix and presence and focus cranked, the Venus can blaze so hard you'll have other guitarists rubbing their eyes in disbelief.

The Verdict

Let's face it, there's a dearth of 6V6 amps on the market, let alone impeccably voiced, wonderfully moldable ones with gorgeous reverb. If you're looking for a hefty yet highly portable amp that brings something new and unexpected to this semi-lonely corner of the tube galaxy, Rivera's new Venus Deux is definitely worth a listen—especially considering the extremely reasonable price tag.

PG PREMIERGuitar PREMIER GEAR

CLICK HERE TO HEAR this amp at premierguitar.com/aug2014

RATINGS

Rivera Venus Deux

$1,499 street
rivera.com

Tones	
Ease of Use	
Build/Design	
Value	

PROS **Alternatingly gorgeous and gloriously rude tones. Simple, yet brilliantly flexible. Exceptional build quality.**

CONS **Reverb can sound excessively trebly at extreme settings.**

www.FreakingSick.com

World's Most Interesting Guitarist

"I don't always play with an Overdrive Pedal.
But when I do,
I Play the Freaking Sick
30 Volt Overdrive,
From Freaking Sick Electronics"

866-500-1717

PREMIER GEAR

GIBSON
J-15 and J-29

By Charles Saufley

Gibson's slope-shouldered dreadnoughts are among the guitar universe's truly great designs. The convergence of curves and understated ornamentation are a study in proportional perfection, with the sort of simplicity and subdued, utilitarian elegance that makes Eames chairs, Coke bottles, and Boeing 707s iconic.

Though the mahogany-and-spruce J-45 is the most famous manifestation of the slope-shouldered profile, the shape has been the foundation for other Gibsons, including the J-35, the natural finished J-50, the 25 ½"-scale Advanced Jumbo, the rare B-45 12-string, and the J-160 made famous by the Beatles. Gibson still produces many of these guitars, but the new J-15 and J-29 are the first new, non-signature-edition variations on the J body style in years—and very cool departures from the J-45's sonic template.

J-29

The J-29 is the more traditional-looking of the new pair, but it's a handsome devil. If you've grown accustomed to seeing slope-shouldered Gibsons in the classic J-45 sunburst, you'll marvel at how attractive and visually balanced the profile looks in a natural blonde finish. The dramatically striped grain of the Indian rosewood back and sides beneath that nitrocellulose lacquer looks as deep and three-dimensional as an alpine lake. But it's the fretboard rosewood that's most striking, with a red-to-chocolate fade running the neck's length. The bridge is also rosewood, though it's a simple, almost slight rectangular design, rather than the more substantial "belly-up" bridge associated with Gibson acoustics. The J's austere roots (the first Js were designed and built during the Great Depression) are honored in the simple white/black/white rosette and binding, even if the woods exude an upmarket aura.

The J-29 isn't the first or only rosewood-backed Gibson slope-shoulder. In fact, the company has built rosewood-backed J-45s quite recently. But it's a compelling alternative for any player who loves the slope-shoulder style, but prefers the stronger projection of a rosewood, square-shouldered Gibson or a rival like the Martin D-28.

The J-29 has amazing headroom. It's a fantastically loud guitar if you want it to be—you can positively hammer the thing with a flatpick without generating confused harmonics. You get projection and raw horsepower that rivals any dread. The trade-off for all this volume—one many players will like—is brash, bright upper mids, which can get white-hot at times. These qualities remain pronounced through the otherwise agreeable and transparent L.R Baggs Element electronics. If you're a rock strummer, you'll probably love the J-29's power and presence in a band mix. Meanwhile, that dynamic sensitivity means that you don't have to strum too vigorously to get it. That said, it can be hard to back the J-29 down into those softer, smokier moods at which the mahogany J-45 excels.

Our J-29 was set up with slightly higher action than the J-15, presumably to highlight the guitar's ample horsepower and definition when flatpicked. While the J-29 can excel at fingerstyle—especially high-harmonic detail in open tunings—it has a fast, excitable reactivity most at home in rock, bluegrass, and country.

The J-29 has amazing headroom. You get projection and raw horsepower that rivals any dread.

Full-sized Grover 14:1 tuners

CLICK HERE TO WATCH this guitar at premierguitar.com/aug2014

RATINGS

Gibson J-29

$2,250 street
gibson.com

Tones	
Playability	
Build/Design	
Value	

PROS Sky-high headroom. Loud enough to hang in any picking circle. Pretty and understated.

CONS Upper mids can be brashly bright.

J-15

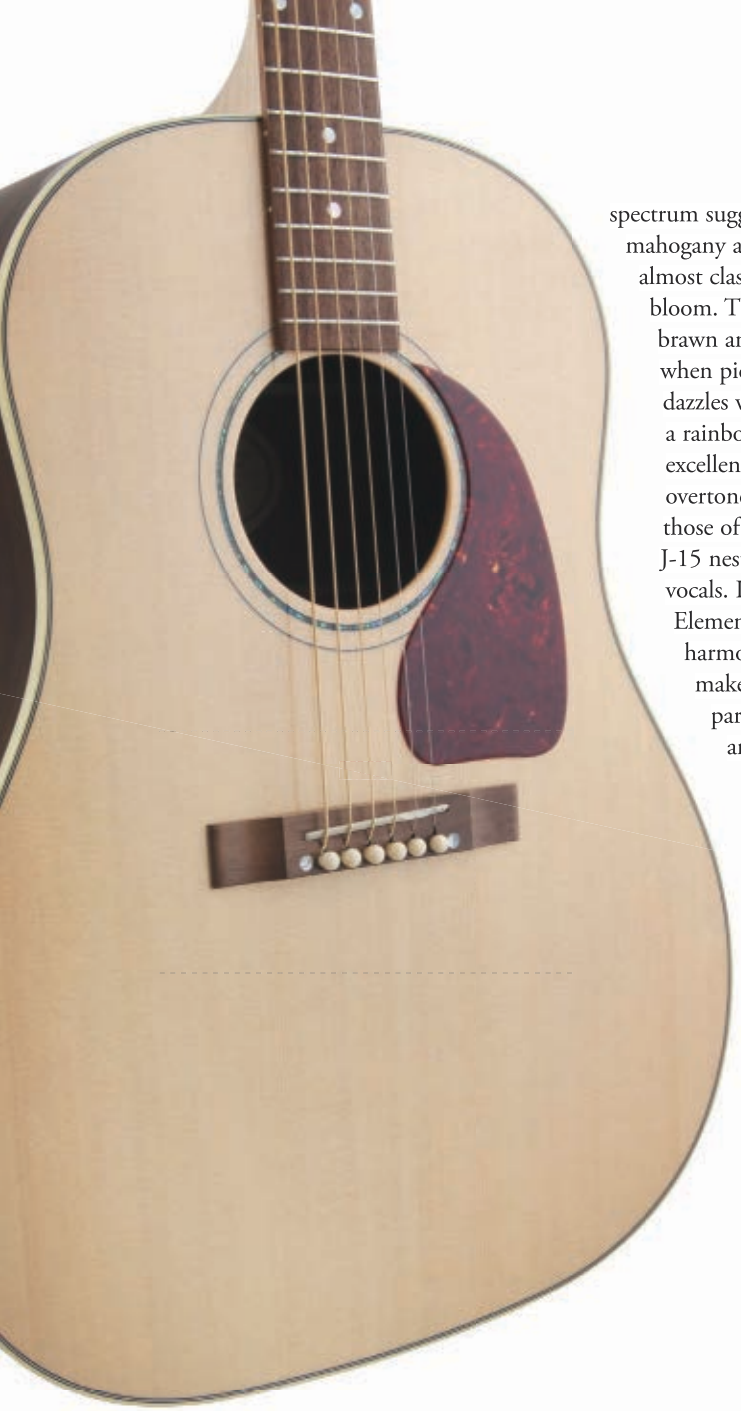
The more affordable of the new Gibsons is also the more soft-spoken. But while it's less explosive than the J-29, the J-15 is a very playable and flexible instrument. It's also one of the most unique-looking J-bodies ever built.

Like the J-29, the J-15 has a solid Sitka spruce top with a nitrocellulose lacquer finish. The back and sides, however, are American walnut. The grain undulates like sheets of rain cascading down a windowpane. More striking still (at least to the eyes of Gibson traditionalists) is the blonde-finished maple neck whose rosewood skunk stripe lends a European touch. It evokes several classic German designs and the beautiful necks on '60s-era Vox guitars. The walnut fretboard, lighter in color than your average rosewood fretboard, complements the blonde neck. The Mini Grover tuners—less ponderous than the full-sized machines on the J-29—add to the guitar's light, airy look. The neck differences aren't just visual—despite a 12" fretboard radius and 1.725" nut width, the J-15's neck feels appreciably thinner.

Except for one minor detail, the J-15's construction is excellent. Unfortunately, a roughly cut section of bracing is plainly visible when you peek into the soundhole from a playing position. The fact the problem could have been solved with a few seconds of light sanding makes the oversight doubly frustrating.

The J-15's sandy shades evoke the arid beauty of the high desert, and its sound conjures similar images. It's a bright, dry, husky voice that can sound almost thin after playing the more bombastic J-29. In reality, the J-15 is a very dynamic guitar that generates plentiful shades in response to your playing.

Like the 29, the 15 has sky-high headroom, though it's a sky of a different hue. The controlled, balanced tone



spectrum suggests a cross between mahogany and maple, with a an almost classical guitar-like overtone bloom. The J-29 strikes you with its brawn and near-blinding brightness when picked hard, while the J-15 dazzles with airy high midrange, a rainbow of overtones, and excellent string definition. The overtones, however, are softer than those of the J-29, which helps the J-15 nestle unobtrusively behind vocals. It's a great match for the Element electronics. The J-15's harmonic richness and focus makes it an easy guitar to record, particularly for spare fingerstyle arrangements than can showcase the instrument's subdued-to-bright dynamics.

The Verdict

One of the coolest things about the J-15- and J-29 is that they represent genuine alternatives—not only to traditional round-shoulder Gibsons, but to each other. Rockers and bluegrass pickers itching to be heard over that dude with the pre-war D-28 will love the J-29's high-mid presence, volume, and seemingly infinite headroom. Fingerstylists, moodier singer/songwriters, and recording guitarists will love the J-15's dynamic breadth and dry, husky tone. Dyed-in-the-wool slope-shoulder Gibson devotees who savor the sonic nuances of vintage J-45s and Southern Jumbos may not love either guitar (though I suspect they'd favor the woody mellowness of the J-15). But the bottom line is that Gibson has expanded the sonic range of one the most attractive acoustic body shapes ever conceived.

At $1,500 bucks for the J-15 and $2,250 for the J-29 (yes, good rosewood is very expensive these days, darling), the guitars are destined to duke it out with many other excellent guitars in this competitive price bracket. But these unique and wonderful-sounding instruments seem destined to carve a niche all their own.

PG PREMIERGuitar PREMIER GEAR

CLICK HERE TO WATCH this guitar at premierguitar.com/aug2014

RATINGS

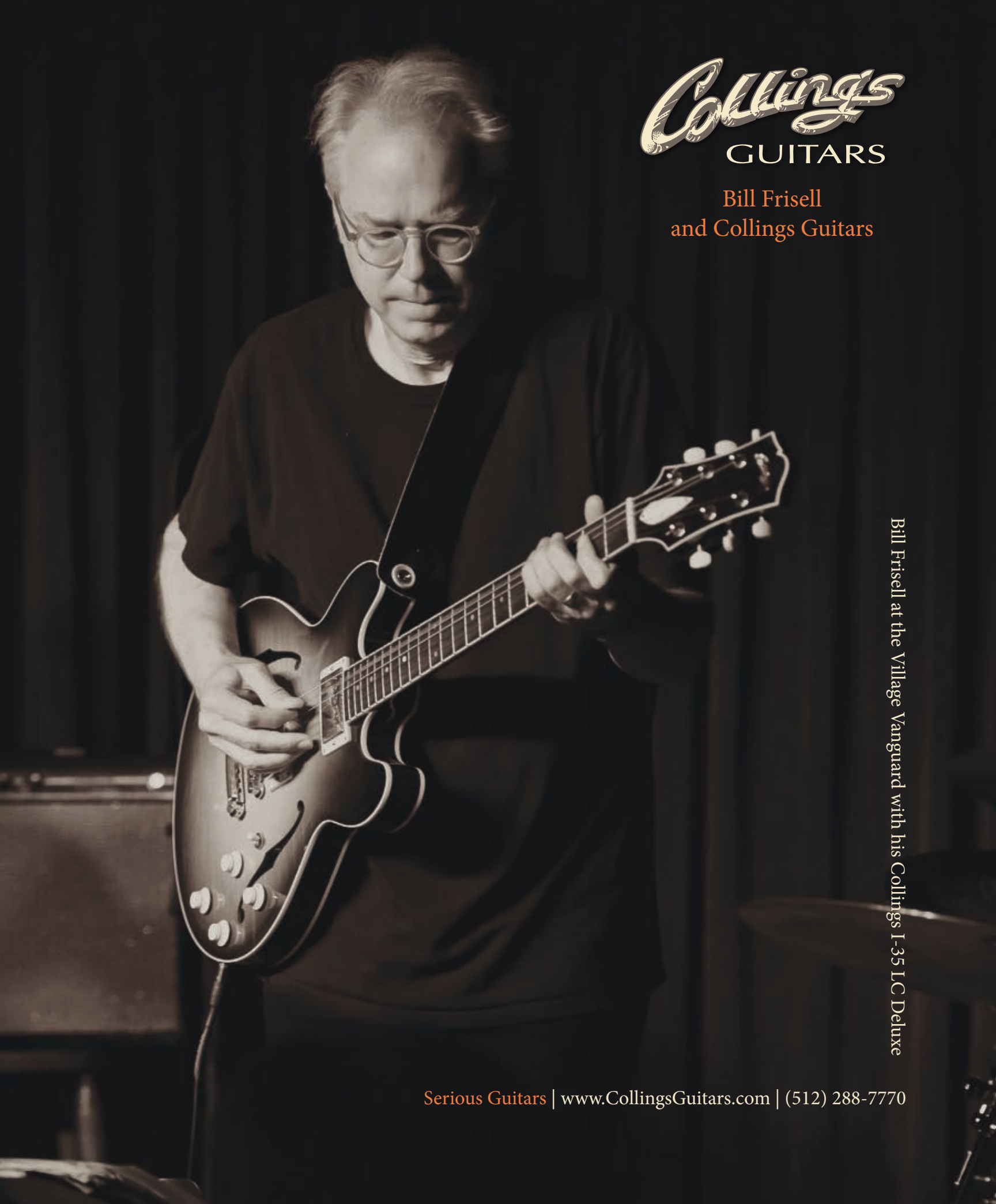
Gibson J-15

$1,500 street
gibson.com

Tones	
Playability	
Build/Design	
Value	

PROS Excellent overtone balance. Distinctive, dry voice. Cool twist on the traditional Gibson slope-shouldered style. Surprising headroom.

CONS Lacks some warmth of a mahogany-backed slope-shouldered Gibson.



Collings
GUITARS

Bill Frisell
and Collings Guitars

Bill Frisell at the Village Vanguard with his Collings I-35 LC Deluxe

Serious Guitars | www.CollingsGuitars.com | (512) 288-7770

IBANEZ TS808DX

By Charles Saufley

It's hard to believe the Tube Screamer has been around in one form or another for more than three decades. In that time its knack for driving an amp to spaces from mellow drive to growling low-gain distortion has won legions of fans—and stirred up a few critics too, who usually go on at length, uninvited, about midrange humps and other easily avoidable or barely noticeable phenomena. But I digress.

Even a dedicated Tube Screamer fan can be forgiven for losing track of the many varied models that have carried the TS designation. But the new TS808DX Pro is bound to stand out in the TS family picture—not just for its size, but for an added boost circuit that makes it one of the most adaptable TS pedals ever.

Tanks Come in Green

Though more than a simple three-knob overdrive, the TS808DX is a return to the Tube Screamer's roots in many respects. The unit is built in Japan, and when you crack open the back, there a busy but ordered assemblage of printed circuit board and breadboard circuit that looks like it could have been extracted from a 30-year-old pedal. Even the enclosure has a "they don't make 'em like this anymore" heft. The pedal feels like something that's passed through the hands of experienced builders rather than a sprawling assembly line.

Even with the added boost circuit, the layout is simple. There's the standard TS volume/tone/overdrive trio, plus a boost level knob. Two footswitches activate OD and boost. Beneath the boost level control is a small toggle to switch the effect order—a function that significantly expands the pedal's palette. There's also a 9-volt/18-volt toggle, providing a choice between standard operation and a higher-voltage setting with greater headroom.

Green Pedal, Blooming Tones

I've played original TS808s, owned a few clones, and have used a very early TS9 off and on for years. But while I've got a pretty good idea about what a good Tube Screamer *should* do, individual specimens can be very different shades of green.

Through the blackface Fender Tremolux used for this review, the overdrive voice of the TS808DX is recognizably in the 808 camp. It's a little less bright and quick to distort than a TS9. It's also a little more controlled, compressed, and boxy-sounding than other 808s I've tried. This isn't necessarily a disadvantage—the relatively compact sound is great for fattening up chords from single coil-pickups without generating a lot of unwanted overtones. It's also agreeable with humbuckers, adding focus and extra heat to the high-mid register that woofy humbuckers can obscure.

Humbuckers are a good match for single-note lead tones, at least if you look to a TS for snappy, hot blues-rock sounds. Bridge humbuckers take on sharp-edged but civilized menace when you run the level control high and set the tone and overdrive controls to excite the upper mids. Single-coil bridge tones (I tried an E Series Stratocaster, a Jaguar, and a Stratocaster fitted with Fender Custom Shop 1969 pickups) are less satisfying. They tend to sound a little dry, though switching the power pedal to 18-volt operation definitely makes the tone feel less boxy. It's worth leaving the voltage toggle in this position if you favor thinner-sounding single-coils.

Boxy is *not* what you hear from neck-position single-coils, however. Much of the TS808's initial fame came via Stevie Ray Vaughan acolytes, and with a neck-position single-coil and a Fender amp, the TS808DX provides a perfect setting for sultry double stop-based blues ballads and slow-burning soul leads. It's here that the TS808DX can go from good to extraordinary with single-coils.

A Kick in the Pants

There's nothing revolutionary about pairing a boost and an OD, though the TS808DX provides an especially complementary

tandem. If you like your overdrive tones burly and a bit rowdy, the combination of these two effects can be addictive.

The footswitch layout makes it easy to kick on the two effects simultaneously. The considerable power of the two effects together lends a plexi-like, slap-in-the-face presence, growl, and attitude to single-coils and 6V6- and 6L6-powered amps. Here too, bridge humbuckers sound especially exciting. But both single-coils and humbuckers can have the bristling edge of Jimmy Page's early lead tones when both effects are on.

The post/pre switch adds additional tone-shaping flexibility. Placing the boost before the TS circuit adds focus and a touch of compression. To my ears, this works best at reeling in the overtones of 1st-position chords and big-voiced humbuckers.

My favorite settings, however, place the boost after the OD. If you're a slashing power chord player who relies on suspensions and sustained chords (aspiring Townshends take note), you get more ringing, colorful harmonics and greater sustain. And if you just set all the OD controls to noon and work the boost between 3 o'clock and maximum, the TS808DX lends a hot, nasty Marshall-like edge for slashing, punky chords and leads.

The Verdict

While the TS808DX's overdrive probably won't convert TS skeptics, it's an excellent effect that humbucker fans in particular should investigate. But the powerful combination of boost and overdrive should intrigue any player who likes organic-sounding distortion. The two circuits together can generate spine-tingling tones—the stuff that can make a guitar you've fallen out of love with sound alive again. Provided you don't need high gain or over-the-top fuzz tones, you could make this the only dirt pedal in your line and still have a huge range of distortion tones to work with.

CLICK HERE TO WATCH this pedal at premierguitar.com/aug2014

RATINGS

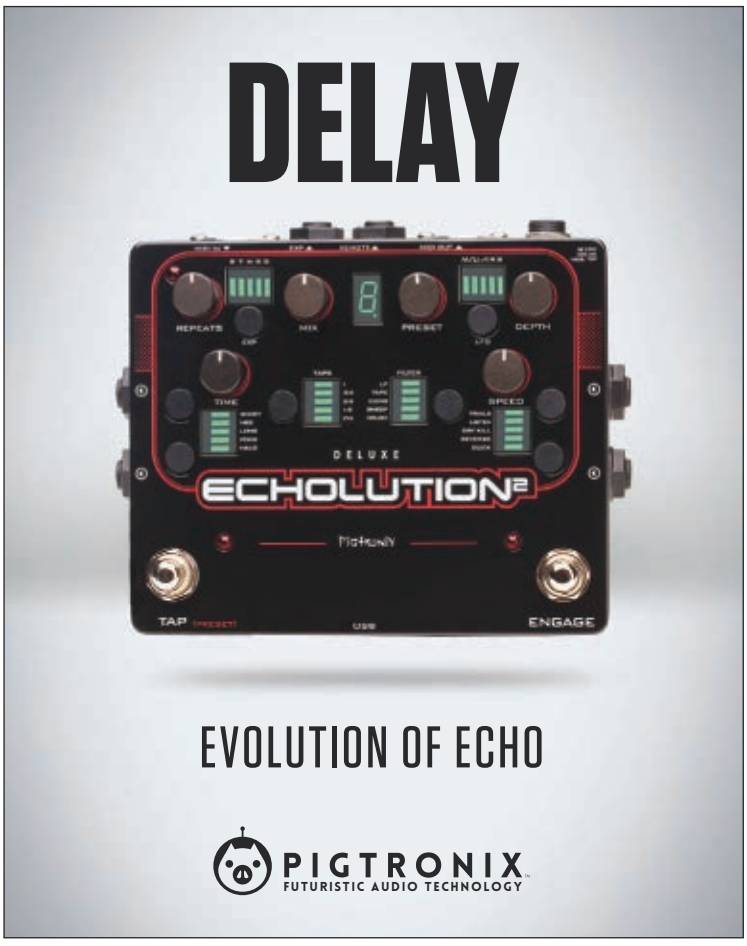
Ibanez TS808DX

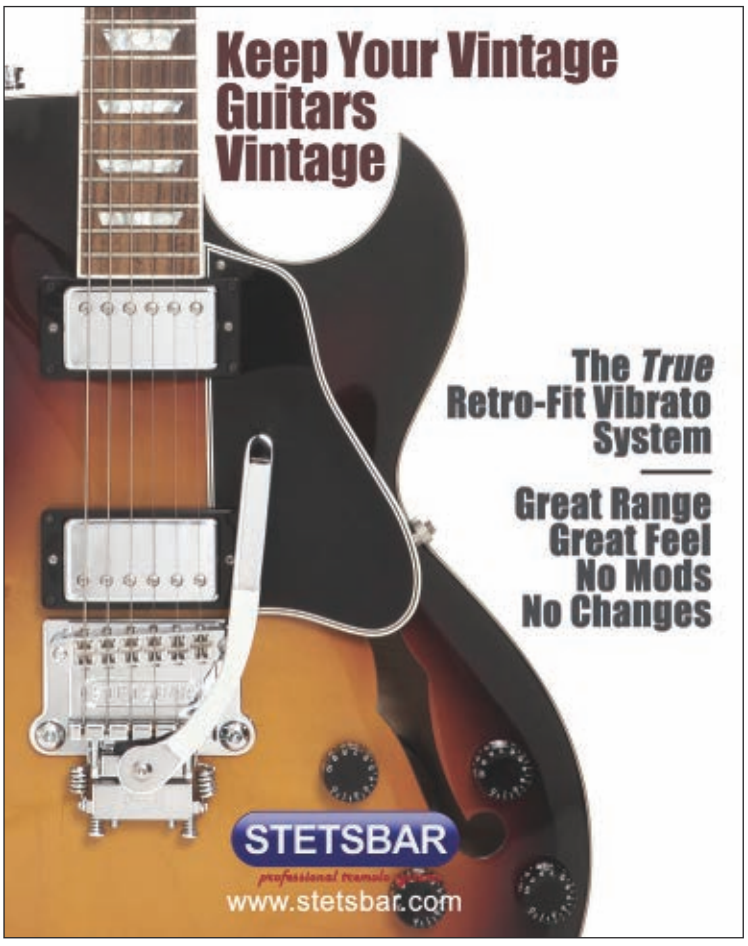
$249 street
ibanez.com

Tones	
Ease of Use	
Build/Design	
Value	

PROS Well-voiced overdrive/boost combination does thrilling things to your amp. Sturdy construction.

CONS Overdrive circuit can sound thin with bridge single-coils.





Did you know?

WE ARE THE LARGEST BOUTIQUE AMPLIFIER SHOP
IN THE WORLD WITH HUNDREDS IN STOCK RIGHT NOW!

WE KNOW GUITARS. WE KNOW PEDALS. BUT WE *REALLY* KNOW AMPS!

Two-Rock

Tone King Amplifier Company

Swart

MESA ENGINEERING

VICTORIA

Carol-Ann

MORGAN AMPLIFICATION

Suhr

Tungsten AMPLIFICATION

Vintage Sound Amps

ANALOG OUTFITTERS

ORANGE

JACKSON AMPWORKS

CARR AMPLIFIERS

Bad Cat TUBE AMPLIFIERS USA

THEY SELL TONE!

HumbucKeR MUSIC

"one dandy music shop"

WWW.HUMBUCKERMUSIC.COM

(706) 866-2161

PREMIER GEAR

BORN OG Carve

By Joe Chrupakorn

It would be hard to find a company more committed to building guitars sustainably than Born Custom Guitars. The company donates ten percent of net profits to reforestation projects and plants a tree for every guitar they make. But the guitars that come from this trio of young luthiers are not gimmicks geared for eco-conscious consumers. Indeed, the OG Carve reviewed here is an impressive piece of *craft* in the strictest sense of the word—cleverly adapting reclaimed cedar and sinker redwood, not to mention inspired design sense, to build a guitar that sounds, looks, and feels as luxurious as anything built from traditional tonewoods.

Born Different

In terms of production and methods, Born inhabits a stretch of turf between a strictly bespoke custom maker and a small batch production company—using a mix of CNC machinery and hand manufacturing techniques. Born offers two base models, the OG single cutaway and MG double cutaway, but these two models can be customized with a multitude of options.

There are 12 available wood types for the body, neck, and fretboard, options for a chambered or solid body, various neck shapes and profiles, headstock shapes, and pickup configurations—everything all the way down to the knob type

can be customized to suit a customer's particular tone predilections. Whatever the options, Born doesn't skimp on the basics—components like Sprague Orange Drop caps, Switchcraft jacks, military-grade pots, and silver-plated PTFE-coated wiring are all standard.

Our review guitar could be a poster child for Born's sustainability centric philosophy. Born only works with loggers that are certified by the Forest Stewardship Council, and the company's close scrutiny of lumber's origins often means a guitar comes with an intriguing story to tell. In the case of our test model, the body is made from Port Orford Cedar a stable and light softwood from a region in Southwestern Oregon that was ravaged by a fire in the early 2000s. The guitar's heavily flamed top is made of California redwood from a sinker log that was trapped in Northern California riverbeds in the late 1800s.

The resulting guitar looks stunning. It feels great too. There is a forearm contour on the OG Carve's top and the neck scarf joint is contoured to allow easy access to the upper frets of the carbon fiber-reinforced 22-fret neck. The neck has a 10"–14" compound radius fretboard and "D" shape profile, which feels both comfortable and substantial, if not especially fast.

Sustainable Sounds

I tested the OG Carve through a Fender Super-Sonic combo with several pedals, including a Pro Co RAT, Hermida Audio Zendrive, and Line 6 M5. The OG Carve's pickups—handwound by pickup guru Mike Snider in Rochester, New York—use mismatched coils which generates a very PAF-like, low-to-medium output sound that, when paired with low gain pedal settings, delivered very tasty John McLaughlin-style lead tones—civilized, articulate with a hint of edge and explosiveness. The OG Carve excels in these situations, and the articulate mids and low mids give single notes a very vocal quality. You don't have to use too much imagination to hear the Port Orford Cedar body and redwood top's warmth working together to generate a balanced, smooth, and contoured output. The icing on the cake is a cool natural compression adds clarity and punch to the warm body tones.

No matter how much gain I stacked on top of the OG Carve's basic output, the guitar retained its smooth, polished voice. If you're venturing into metal zones and beyond, the OG might not be hot and gnarly enough. But it's as willing to rock as a good Les Paul and the basic voice is so well suited to rock and pop textures that you get the feeling you could very specifically tailor a version of the OG Carve to your own stylistic needs by selecting options with the input of the Born crew.

In clean modes, the chambered body produces a three-dimensional airiness—perfect for the haunting chord melodies that are a Bill Frisell signature. You hear a piano-like resonance with overtones that ring out clear and perfectly balanced with bass and treble fundamentals. The OG Carve generates a pretty wide range of clean tones—thanks in part, I'm sure, to the combination of the warm-and-clear tonewood recipe and the well-balanced pickups. Bridge pickup tones could be massaged into mellow, even jazzy tone zones with a adjustment to the tone knob and a little variation in pick attack. The neck pickup, meanwhile, very willingly delivers old-school Wes Montgomery tones when I had the tone knob rolled way back.

The Verdict

Some skeptics will no doubt wonder if Born's focus on sustainability undermines excellent design and craftsmanship that goes into the guitar. Nothing could be further from the truth. Indeed, the OG Carve is a shining example of why guitar builders might be best served by making the move away from sacred-cow timbers and into sustainable materials. The OG Carve is a flat-out killer axe by any standard that can stand neck and neck with the best of them. The guitar's $2,995 base price may put it out of reach for many, but it's comparable in price, if not a better value, compared to a lot of boutique axes that are much less interesting and unique.

CLICK HERE TO WATCH this guitar at premierguitar.com/aug2014

RATINGS

Born Custom Guitars OG Carve

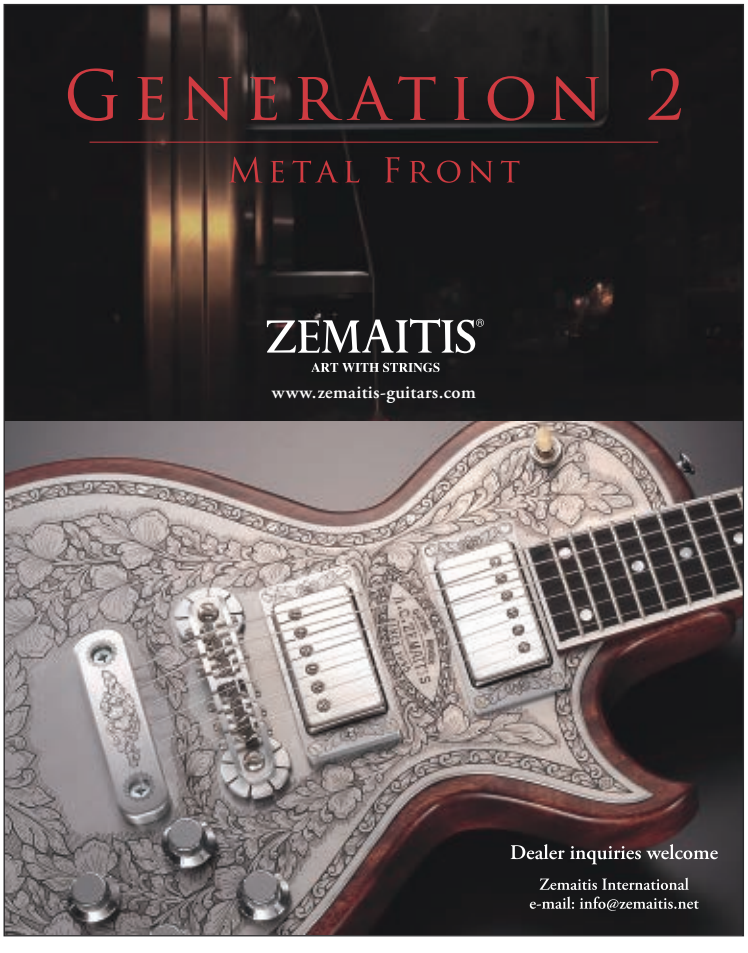
$2,995 street
bornguitars.com

Tones	
Playability	
Build/Design	
Value	

PROS Excellent build quality. Gorgeous wood. Unique tones. Excellent use of reclaimed materials.

CONS Expensive.

★★★★★
"incredible tone"
★★★★★
"for playing blues, I couldn't ask for anything more"
★★★★★
"unbelievable sound"
★★★★★
"perfect sweet, smooth early 60s Les Paul/SG tone"
★★★★★
"the real sound I wanted"
Read all the ratings and reviews and buy online:
stewmac.com
Golden Age
PICKUPS
vintage tone
perfect prices!
Golden Age pickups get great reviews for their sound. Low prices just sweeten the deal! Exclusively from:
stewmac.com
for Tele®
ParsonsStreet P-90
for Basses
Overwound
Stewart-MacDonald: Everything for building and repairing stringed instruments! 800-848-2273 stewmac.com


GENERATION 2
METAL FRONT
ZEMAITIS®
ART WITH STRINGS
www.zemaitis-guitars.com
Dealer inquiries welcome
Zemaitis International
e-mail: info@zemaitis.net

CHANGE IT · CRANK IT · SHRED IT
www.bourns.com/proaudio
BOURNS®
PRO AUDIO

MXR M68 Uni-Vibe

By Charles Saufley

There's no questioning the cool designs and visceral sonic appeal of '60s guitar effects. The practical shortcomings, however, can make them hard to live and work with. Take the original Univox Uni-Vibe. It's a legend—the swirl in epic psychedelic sundaes from Jimi's "Machine Gun" to Pink Floyd's "Breathe." It's also a complete pain in the rump—a cumbersome assemblage of expression pedal, wires, switches, and an optical circuit packed into a clunky box that might as well be marked "auto-destruct unit." Hell, you could argue that the mammoth Leslie speakers the Uni-Vibe was built to emulate (yes, the exalted Uni-Vibe was once itself just a cheesy, ersatz rotary speaker) would be the *simpler* way to put a little wobble in your jams. Weigh those facts, and it's easy to understand the appeal of a Phase 90 and a 9V battery.

So with romantic notions about the original Uni-Vibe put to rest, let's dispel another suspicion you might harbor right off the bat: MXR's new, compact M68 Uni-Vibe is *not* an optical circuit-driven Uni-Vibe miraculously shrunken and stuffed in a compact enclosure. What it *is*, is an excellent FET-driven, analog chorus/vibrato that swirls with depth and character and delivers a pretty authentic approximation of the original Uni-Vibe tones—especially in the chorus setting—for a relatively tiny chunk of change.

Sturdy Little Modulation Machine

Though the M68 Uni-Vibe lacks an expression pedal (a design decision that vintage buffs will decry) the controls are similar in function to Dunlop's expression-pedal-based Rotovibe.

On the M68, the speed knob takes the place of the Roto-Vibe's expression pedal, the depth knob is mounted on top rather than the side, and the small "vibe" button on the M68 takes the place of the chorus button that's side-mounted on the Roto-Vibe.

One of the biggest advantages the M68 Uni-Vibe has over the Roto-Vibe is its level control. As we'll find out, this expands the tone and expressive range of the M68 and lends an extra measure of authentic Uni-Vibe depth and color.

Chorus for the Chorus Averse

One of the most satisfying ways to get to know the M68 Uni-Vibe is to start with the default chorus setting and set the speed and depth slow. Right away you'll hear how the M68 differs from the icy, artificial chorus tones that have scarred digital-averse listeners since the '80s. The M68's chorus textures are organic and rich (if not exactly super-lush) and each modulation cycle has a very pleasing and natural taper that's free of jagged, square-wave overtones or harsh clipping.

A great place to commence exploring the chorus sound is to set the speed at 10 o'clock and depth anywhere between 10 and 2 o'clock, and then strum Em. You'll hear a dang-near dead-on approximation of Gilmour's languid, Uni-Vibe derived tone on "Breathe."

From these familiar grounds, you can investigate the throbby fast settings (which remain impressively organic and smooth sounding at the fastest speeds and most intense depth settings) or the lazy rotations of the slowest modes. Each extreme and the zones in between can make ordinary chords and single-note lines sound lively, and while there might be fatter sounding analog chorus pedals, the M68 replicates some electro-mechanical nuances of a real rotary speaker—natural-sounding Doppler rise and fall, and smooth overtones in particular—with satisfying ease.

The chorus mode is made more flexible and expressive by the level knob. As a boost, it's pretty mellow, but it adds low- and low-mid emphasis that enhances the rubbery qualities of the chorus. It also has the effect of giving the depth control more range and flexibility, and using the two together helps you really tailor the elasticity of the sound to suit specific guitars, pickups, and amps. This aspect of the control setup pays major dividends if you want to use the pedal with a fuzz, and you can really excite frequencies from a fuzz or overdrive that might otherwise be lost in the tone vortex. The additional low-mid push also fattens up the swirl, and aggressive use of the two controls together is especially handy for thickening the output of Stratocaster-type pickups. Aspiring Jimis and Ernie Isleys will undoubtedly love what the MXR can do in this setting.

If your tastes lead you to the more psychoactive realms of the chorus effect, the MXR is capable of some very twisted and unorthodox tones. And maxing each control produces heavy, near-synthy, almost repeat percussion-like sci-fi pulses.

Mad and Mellow Vibe

Interestingly, the M68's vibe settings often have a more retiring personality, especially at slow speeds. Where the chorus is fairly pronounced at very slow settings, the vibe effect is barely perceptible until somewhere between 9 and 10 on the speed knob, where it starts to take on a woozy, elastic, narcotic quality that's a perfect match for sleepy chord arpeggios.

As with the chorus, the pulses have a naturally contoured taper and harmonic depth that are a great stand in for a rotary speaker in motion. And though the highest speed setting produces a complex, queasy pulse that seems to move on multiple axes, it still sounds very organic. These faster speeds sound even more detailed at reduced depth settings. You'll also hear more shake in the high frequencies when you roll back the depth control. And the resulting tones can do a fine impersonation of the high, humming whirr of a Fender Vibratone if you set the speed right.

The Verdict

The fact that the M68 isn't the deepest or most mind-warping chorus tone will actually be a benefit to a lot of players. And its civilized, play-nice nature makes it the ideal chorus for any player who likes the effect as a secondary texture rather than the underpinnings of a riff. That said, the M68 can sound fat enough in chorus mode to please all but the most obsessive Jimi and Gilmour fiends—especially with a fuzz. And the maniacal pulse of the fastest vibe and chorus settings can re-cast the simplest riff or lead into a psychedelic voyage. For just less than 130 bones, it puts a lot of very tasteful, natural, and even demented modulation effects at your fingertips—all in a package that's compact, intuitive, and doesn't require it's own full-time tech.

CLICK HERE TO HEAR this pedal at premierguitar.com/aug2014

RATINGS

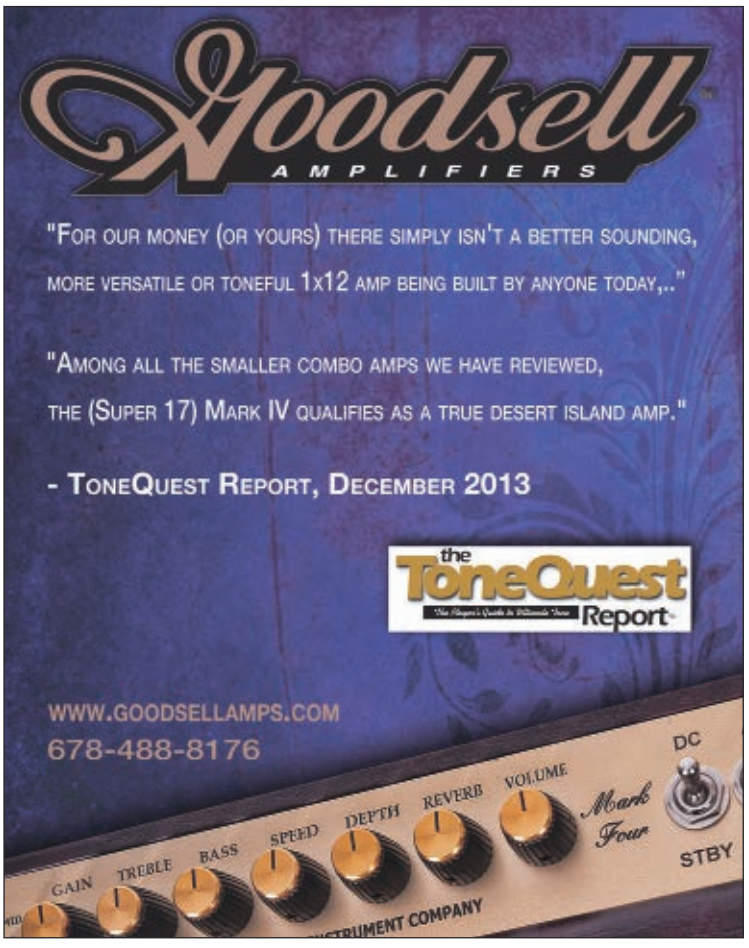
MXR M68 Uni-Vibe

$129 street
jimdunlop.com

Tones	
Ease of Use	
Build/Design	
Value	

PROS **Organic modulation tones. Level control adds tone-shaping power *and* a boost.**

CONS **Vibe effect is super subtle at slow speeds.**



Seagull

Canadian Made. Globally Played.

seagullguitars.com

© 2014 Seagull Guitars (Registered trademark of La Patrie Inc.)

PREMIER GEAR

REVEREND
Meshell Ndegeocello Fellowship

By Jonathan Herrera

Among bassists, 10-time Grammy nominee Meshell Ndegeocello enjoys a special kind of respect. Her far-reaching talent as a sidewoman has found expression in extraordinarily diverse projects, from collaborations with Herbie Hancock to Madonna to John Mellencamp. As a solo artist, she has veered from the bubbly grooves of *Plantation Lullabies* to the melancholy tone poems of *Bitter* to her recent Nina Simone tribute record *Pour Une Âme Souveraine*.

Given Ndegeocello's idiosyncratic artistry, her decision to collaborate with Reverend on her signature Fellowship bass is understandable, since Reverend also approaches its art from a unique angle. The new Fellowship bass is based on the company's Thundergun platform—a sort of angular P-bass-esque instrument—but with some substantial departures.

Mellow Fellowship

The most immediately striking qualities of the Fellowship are its sleek lines, lustrous satin-black finish, reverse headstock, and pretty bound-and-blocked fretboard. The bass's Art Deco elegance is immediately appealing. Even the single P-style

pickup's blade magnets reinforce the sophisticated aesthetic.

The Fellowship takes a unique approach to the conventional P-bass-style electronics layout. The blade-shaped magnets improve the pickup's off-axis response, and the concentric tone/volume knob situates the frequently used tone control for immediate access.

The body and neck also take a left-of-center approach, at least as compared to a P. As on all Reverend basses, the Fellowship's body is made from korina, a tonewood frequently associated with Gibson's late-'50s Flying V and Explorer. Known for its balanced frequency response, clarity, and sustain, korina is also appealing for its light weight, as the Fellowship demonstrates. The instrument's top is thicker along the center, abutted by two thinner wings. Reverend claims this design puts the body's mass where it needs to be—in line with the pickups and bridge—while allowing the thinner wings to resonate more freely for increased sustain and harmonics. The Fellowship's set neck also improves resonance. It's a 5-piece design, with alternating laminates of korina and walnut.

The Fellowship hard-core hardware contributes mass to the bass's sonically influential parts. The lock-down bridge's Allen bolts secure the saddles to the hefty bridge plate so that the string-contact points at the saddle work in unison with the bridge plate to improve clarity and attack. Players have the option of stringing the bass through the body. The heavy-duty tuners match the bridge's beefiness. They turn smoothly, look well-finished, and feature 1/2"-diameter posts.

Reverend Feelgood

The bass felt comfortable strapped or in my lap. Its subtle contours conformed to my body, and the sleek, satin-finished neck is fast and well shaped. The set neck provides easy access to the upper registers. The bass is a *little* neck heavy, perhaps due to the body's light weight and the massive tuners. But otherwise the bass feels fantastic, with comfortable string spacing and just-right low action.

The Fellowship is pure meat-and-potatoes when played palm-muted and with the tone rolled off.

I played the Fellowship live through several amps, including a TecAmp Puma 1000 and a Demeter HBP1-800D with Epifani and Bergantino cabinets. At home, I tracked a few overdubs with a Tube Tech MEC 1A and a Universal Audio LA-610.

Given the Fellowship's P-style pickup and electronics, it's not blessed with a huge variety of tones. But that's clearly not the instrument's purpose. It *does* offer a big and immediately beguiling Precision-like thump. It's capable of pillowy fatness, especially with the tone rolled off, but manages to retain definition, string-to-string clarity, and presence.

With the tone knob all the way up, the Fellowship has impressive high-frequency response for a P-style bass. Rather than wallop the room with the usual midrange *thonk* of a P, the Fellowship provides a more balanced and subtle response. Massive lows are ever-present, but a genuinely airy and crisp high end is there when needed, lending definition to pops, Paul Jackson-style vibrato, and up-tempo fingerstyle work. But the Fellowship is pure meat-and-potatoes when played palm-muted and with the tone rolled off.

The Verdict

Ndegeocello's signature bass looks fantastic, brims with style, plays smoothly, and pours forth a fat-but-articulate tone that works well in most settings. Any sonic limitation are consequences of the P-style design in general, and by P-style standards, the Fellowship is remarkably versatile. Players in the market for a P-style bass that stands out visually and sonically should include the Fellowship in their search.

CLICK HERE TO HEAR this bass at premierguitar.com/aug2014

RATINGS

Reverend Meshell Ndegeocello Fellowship

$1,199 street
reverendguitars.com

Tones	
Playability	
Build/Design	
Value	

PROS Gorgeously austere aesthetic. Beefy build. Fat, versatile P-like tone.

CONS Heavy headstock makes neck dive a bit.

SOURCE AUDIO
Soundblox 2 Manta Bass Filter

By Steve Cook

Source Audio has been capturing the hearts and minds of effect-hungry low-enders. They've delivered wobble-bass and synth-like tones to devotees of dubstep and other EDM styles. And now they've taken things to the next phase (pardon the pun) with the Soundblox 2 Manta Bass Filter.

Ray of Hope

The Manta is a powerful multi-effector with a varied and impressive palette. Real estate is precious on any pedalboard, so I was happy to see that the Manta is only about half the size of previous Soundblox pedals. The aluminum enclosure is sturdy, and purple is the perfect color for this funkified animal.

The pedal lets you shape tones with straightforward parameters, providing a dynamic collection of useful sounds. The layout is fairly easy to navigate, though it did take time for me to figure everything out—this is not your typical two-knob filter pedal! The Manta features 12 filter effects and eight distortions, with each distortion tuned to pair with a specific filter. Once you select an effect, you can specify its envelope, speed, and depth. The option-select button provides additional control, including resonance, effect mix, and drive type.

The Manta supports MIDI control via both standard controllers and Source Audio's Hot Hand controller (not included). Sound a bit daunting? It can be. But when you have so much textural control, it's no surprise that it takes some time to get up to speed.

Make Your Mantra

The central control knob is the starting point. Here you can dial in a number of effects, organized by filter type. The pedal's extended mode provides additional options for a total of 24 filter variations. Especially interesting is the mod-source control, which can alter the LFO's attack and transform the

wave shape from a smooth sine to a jagged sawtooth. The modulation characteristics blend as you move between settings, so you can tailor in-between tones to taste.

With so many parameters, it can be difficult to change tones mid-song, and without an external controller, you can only access two presets via the pedal's footswitches. But with the right MIDI controller, you can have random access to 128 presets.

Running through an Eden CXC210 combo amp, the pedal paired well with both active and passive basses. (My active 5-string Warwick Streamer was my favorite vehicle for delightfully nasty lower-register experimentation.) The phaser is great, and when I added a touch of dirty drive via the option select control, I realized that the Manta could replace at least two other pedals. I particularly loved the square-wave LFO setting with tap-tempo and an inspirational delayed/dirty/phaser effect that helped me discover different places to make noise with my fretboard.

The Manta is an endless source of quirky, left-of-center tones. That said, it isn't exactly a "scroll till you find it" pedal. It helps to know what you're looking for, and to invest the time needed to conquer the Manta's learning curve.

The Verdict

You don't have to be a virtuoso soloist or a dubstep master blaster to enjoy this pedal. If you need a dirty boost or alternatives to keyboard bass, you'll find plenty of options here. I like the Manta's modernistic approach, especially in a world where everyone else seems to pine for vintage effects. I suspect that many bassists will find creative uses for the Manta, especially given its modest street price.

CLICK HERE TO HEAR this pedal at premierguitar.com/aug2014

RATINGS

Source Audio Soundblox 2 Manta Bass Filter

$169 street
sourceaudio.net

Tones	4.5
Ease of Use	3.5
Build/Design	4
Value	4.5

PROS Wild yet useful tones. Inspiring effect combinations.

CONS Only two presets available without external MIDI hardware. Some settings can be a bit harsh sounding.

Subscribe to PREMIER Guitar today!

Every issue of *Premier Guitar* comes loaded with tons of juicy gear content including:

- The best gear reviews
- Gear mods and how-to tips from the pros
- Artist profiles and detailed info on their rigs
- Features on builders, designers, and luthiers
- **AND MORE!**

SUBSCRIBE ONLINE TODAY &
SAVE 71% OFF NEWSSTAND!

SUBSCRIBE TODAY @ premierguitar.com/subscribe

Question & Obsession

Guitarist Johnny A. joins us in thinking inside the box, as we ponder what type of amp best suits our individual personalities. We also share our current guitar obsessions.

Q: *If I were an amp, I'd be a _____.*

Johnny A.
Guest Picker

A: Vintage Marshall 100-watt Super Lead because when I was in my formative years, the players who influenced my approach were Hendrix and the British blues-rockguitarists of the day. I'll never forget in 1968 when I saw Jimi live in a very small venue and the impact of experiencing those two Marshall stacks hooked together with coil cords.I got my first Marshall in 1969 and have been using them ever since.

Current obsession:
Right-hand technique. I've been working a lot on the nuances available by applying different picking-hand methods.The expression, dynamics, and tone variables available are endless.

Chris Orbach
Reader of the Month

A: A JC-120. I was big in the '80s and can still do one thing reasonably well (sobs quietly in dark corner of amp cabinet).

Current obsession:
Double-system guitars with separate outputs for humbuckers and piezos, like the PRS Hollowbody 1. I like layering a humbucker with some effects on it alongside a clean percussive acoustic-ish sound to give more textures to rhythm parts. (It's actually been a decade-long obsession, for what it's worth.)

Chris Farruggia

Summer Intern

A: Peavey 6505 because I need only two channels: one for cleans, one for dirty. I like searing amounts of gain, but also the variability of a clean channel. I also prefer 6L6 tubes to EL34 tubes. Lastly, I'm American-made and support this great nation's economy.

Current obsession:
The Dunlop Nylon Max Grip Jazz III has opened up sonic possibilities that I hadn't been able to achieve with other picks. The tonality of the nylon and shape of the pick allow smooth and clear attack from runs to scales to tremolo picking.

Joe Gore

Senior Editor

A: 100-watt, solid-state Vox from the '70s. I'm loud, shrill, overweight, and prone to frequent breakdowns. Yet a few people love me for some reason.

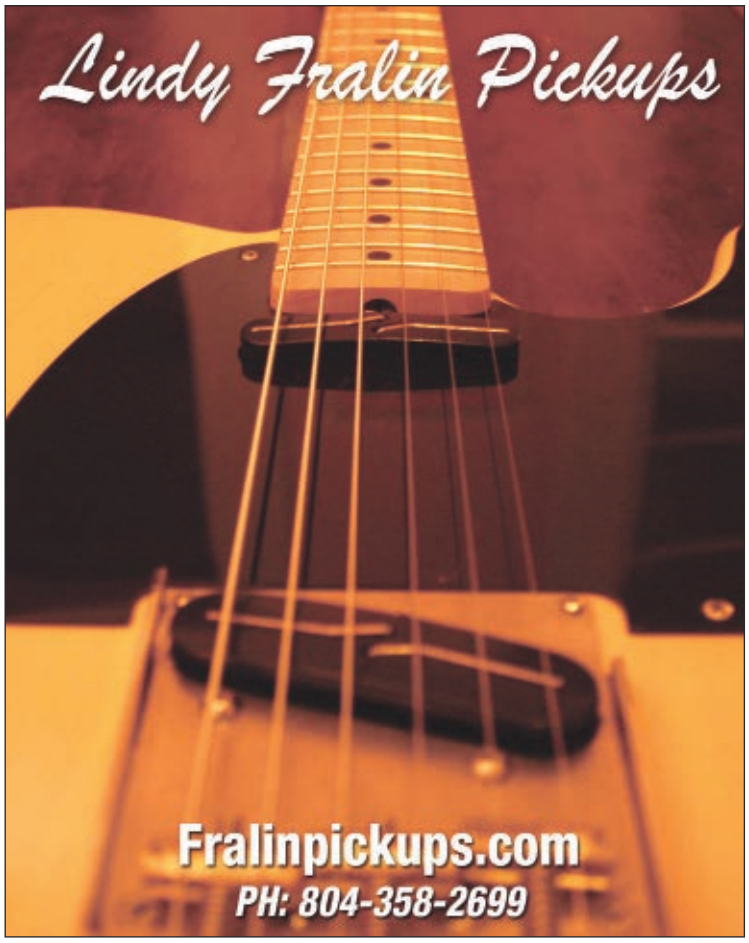
Current obsession:
I'm jonesin' for germanium! I bought a thousand transistors in bulk—enough for 333 Tone Benders, 500 Fuzz Faces, or 1,000 Rangemasters. Or maybe one big-ass Fuzzilla. Yeah, most "mojo" parts are bunk, but germanium truly has unique properties.

Shawn Hammond

Chief Content Officer

A: A '72 Hammond/Leslie speaker cab, because I'm old, girthy, and pretty much just go around in circles.

Current obsession:
Coiled instrument cables. I used to think they were a gimmick for vintage freaks, but no matter how much you wander around your stage or jam space, they never get tangled up.



PG Gearheads win!

Kaye Cross of Banning, CA
Source Audio Fully-Loaded Pedalboard

Enter to win on PremierGuitar.com!

Find our winners online:
Visit PremierGuitar.com/Winners

Premier Guitar ISSN 1945-077x (print) and ISSN 1945-0788 (online) is published monthly by Gearhead Communications, LLC. Principal office: 3 Research Center, Marion, IA 52302. Periodicals postage paid at Marion, IA 52302 and at Additional Mailing Offices. © *2014 Gearhead Communications, LLC. All rights reserved. Reproduction in whole or in part without written permission is prohibited. Premier Guitar are registered trademarks of Gearhead Communications, LLC.* ***Subscribers:*** *If the Postal Service alerts us that your magazine is undeliverable, we have no further obligation unless we receive a corrected address. U.S. Subscriptions: $24.95 for one year. Call for Canada, Mexico and foreign subscription rates.* ***Postmaster:*** *Send address changes to Premier Guitar, 3 Research Center, Marion, IA 52302. Customer Service and subscriptions please call 877-704-4327 or email lois@premierguitar.com. Printed in USA. Volume 19 Issue 8 August 2014*

Stereo Twilighter

Prize Value: $4,478

Enter for your chance to win

PremierGuitar.com/contests

Void where prohibited. Starts July 21, 2014.
Read the full rules at PremierGuitar.com

MONOPRICE
PRO AUDIO SERIES

GUITAR
COLLECTION

PID 610000
$112.99

Woodstock Vintage
Dreadnought Acoustic Guitar
- Natural -

PID 610102
$91.07

California Classic
Solid Body Electric Guitar
- Red -

Available Color
- 610100 - Black
- 610101 - White
- 610103 - Sunburst

PID 610211
$139.05

Route 66 Modern
Solid Body Electric Guitar
- Honey Burst -

Available Color
- 610210 - Black
- 610212 - Goldtop
- 610213 - Vintage Sunburst

PID 610152
$132.99

Retro Vision
Solid Body Electric Guitar
- Metallic Blue -

Available Color
- 610150 - Black
- 610151 - Blonde
- 610153 - Sunburst

PID 610250
$164.99

Arrowhead Vee
Solid Body Electric Guitar
- Black -

Available Color
- 610251 - White
- 610252 - Green

PID 610752
$149.99

6th Street Pub
Electric Bass
- Red -

Available Color
- 610751 - White

PID 610050
$129.99

Foothill Flat Top
Acoustic / Electric Guitar
with EQ - Sunburst -

PID 610703
$155.99

Bourbon Street Jam
Electric Bass
- Sunburst -

Available Color
- 610700 - Black

All guitars ship professionally SET-UP & READY TO PLAY!

•monoprice.com is your affordable PRO AUDIO store•

Visit us at Summer NAMM booth #354

› Copyright © 2014 Monoprice, Inc. All rights reserved.

DiPinto

Quite possibly the coolest guitars in the world.

TELEFUNKEN
Elektroakustik

BLACK
DIAMOND
SERIES

WWW.T-FUNK.COM

David flies with EP

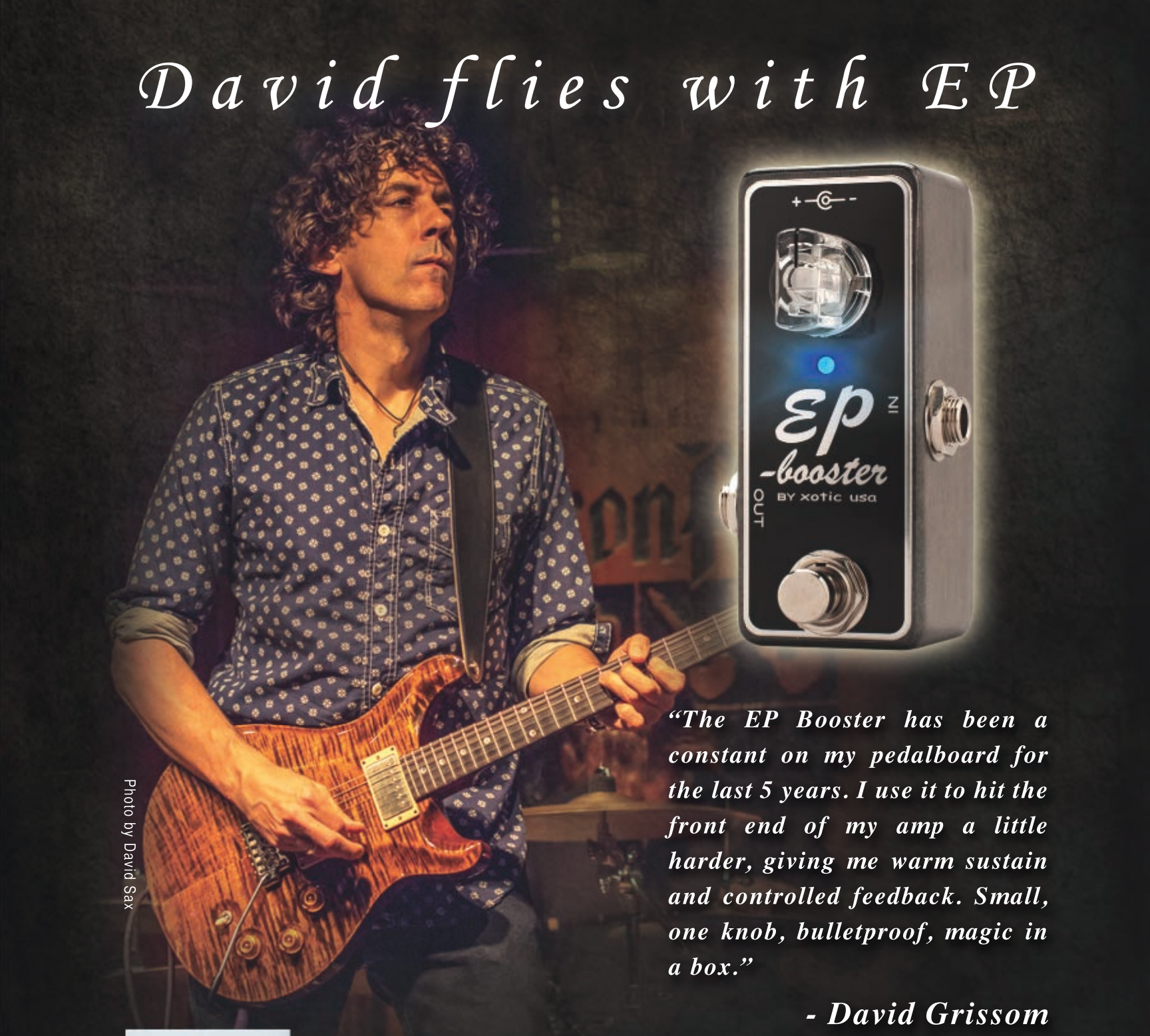


Photo by David Sax

"The EP Booster has been a constant on my pedalboard for the last 5 years. I use it to hit the front end of my amp a little harder, giving me warm sustain and controlled feedback. Small, one knob, bulletproof, magic in a box."

- David Grissom

Check out the David's latest Album, **"How It Feels To Fly"** and hear his great tones boosted with EP Booster!

http://www.davidgrissom.com

Xotic Effects
California, USA

XoticEffects.com

Lehle

SIGNAL ROUTING SOLUTIONS

www.lehle.com

RUPPERT MUSICAL INSTRUMENTS

serious products for serious musicians

www.rmi.lu

CLEAR SKIES ahead.

To create a reverb as immersive as BigSky required tremendous feats of sound engineering and artistic imagination. BigSky gives you twelve studio-class reverb machines, with simple and powerful controls. Hear the floating particles of the Cloud machine. Defy the laws of physics with the Nonlinear reverbs. Unleash the multi-head reverberations of the Magneto machine.

BigSky. Lift your sound into the stratosphere.

strymon.net/**bigsky**

strymon

Joe Barden JBE Engineering

A Bold Family, a Proud Legacy

Drop in and visit with us at www.jbepickups.com

JBE Pickups™
703 530 TONE (8663)

Still "the best pickups on the planet"
...Danny Gatton

Ric is a trademark of Rickenbacker International

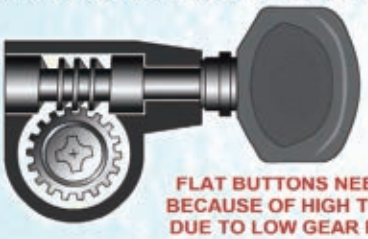
TUNING WILL NEVER BE THE SAME...

TOROIDAL TUNER: THE DREAM MACHINE

- Perfect gear mesh for perfect tuning
- No backlash, impervious to wear
- High gear ratios, super smooth tuning
- Round button, one finger tuning
- Quick and easy re-stringing

MACHINE HEAD: FIXED WORM

GEARS MESHING FIXED AT FACTORY: MANY PROBLEMS



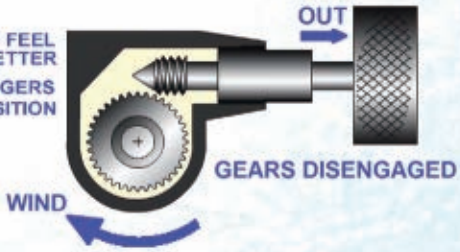
FLAT BUTTONS NEEDED
BECAUSE OF HIGH TORQUE
DUE TO LOW GEAR RATIO

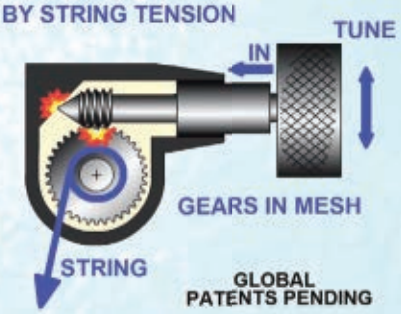
ROUND BUTTONS FEEL
AND LOOK BETTER

FINE TUNE WITH FINGERS
ALWAYS AT SAME POSITION

TOROIDAL TUNER: MOVABLE WORM

GEARS MESHING CREATED BY STRING TENSION





GLOBAL
PATENTS PENDING

ED GONZALEZ
ANSWERS FAQs

Q: How is this tuner different from all previous ones?
A: For 200 years machine heads have had fixed worms, exactly as they were designed by J. Stauffer around 1810. Since then, many inventions have tried to overcome the shortcomings of his design, but so far none of them had challenged the core of the mechanism. Time was long overdue for an improvement. I named it Toroidal Tuner because its movable worm allows it to match the performance of an imaginary screw-and-nut tuner where the nut would be elongated and circular, in the shape of a toroid.

As on a screw-and-nut tuner, the friction areas are pressed together by the string tension, not by their positioning at the factory.

Q: What difference does it make?
A: On a fixed worm meshing depends on positioning and parts stiffness to produce meshing pressure, adding unwanted frictions which degrade performance. Gear play, end play and backlash are unavoidable and will worsen with wear. Small gear teeth will separate and fail under string tension, limiting the gear ratio unless meshing pressure is increased beyond usability.

With a movable worm no pressures or frictions are added. The worm is cornered between its oblique stop and the gear, creating a meshing pressure that increases with the string tension, so the teeth are compressed, they cannot separate and will hold to the limit of their strength, allowing for extremely high gear ratios. In addition backlash, play, and the effects of wear are eliminated.

Q: What other benefit do you get from a movable worm?
A: With a fixed worm re-stringing is messy and time consuming because you wind the string from the button. On a Toroidal Tuner you disengage the gears and wind the string from the shaft, which takes a couple of seconds. With the locking option, you lock and wind the string in one shot.

Q: What does this do for the guitar player?
A: Re-stringing has always been a tedious chore that most players delay until string degradation affects tone. Now we can expect strings to be replaced more often, improving tone in the average. The increased gear ratio and the absence of added frictions, backlash and play make tuning stable in both directions of pitch change, resulting in an incredibly smooth and precise tuning, so guitars will be in tune more often.

All this improves the quality of the instrument and the music, and makes playing more enjoyable.

Q: When and where will these tuners be available?
A: They can be ordered from our web site. OEMs can order them in different configurations, including open frames, to fit the style of their guitars.

Come see them, try them, be amazed, and order yours at our booth this Summer NAMM Show.

ENQUIRE ABOUT OTHER
STYLES AND FINISHES

EDG GUITARS

See demo clips and check our foldable guitars at
edgguitars.com 1-877 EDG-0607

Summer NAMM 14

BOOTH #1640

VanAmps
Analog Spring Reverbs

They're Real and They're Spectacular!
Cop a Feel for yourself at vanamps.com/demos
Like us on Facebook
info@vanamps.com
763-529-1206

ONE TAP
CHANGES EVERYTHING
DPC-4EZ
PROGRAMMABLE
TRUE BYPASS SWITCHER
WITH MIDI

DISASTER AREA DESIGNS
www.disasterareadesigns.com

Do you speak funk?

neutrino
ENVELOPE FILTER

WWW.RKFX.COM 1-866-8-GORKFX

Unmistakable Style. Unbeatable Tone.

THE ORANGUTAN JR.

15W 6V6 1X12 Combo
G12M Creamback
Master Volume
Reverb
30 lbs

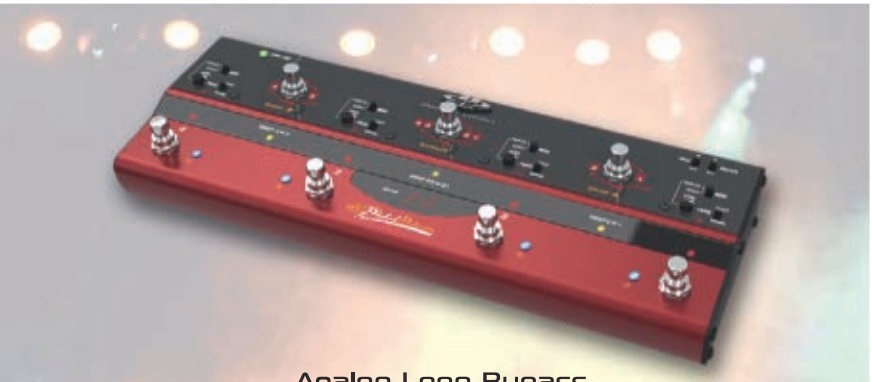
Watch video clips and find a dealer at www.3monkeysamps.com

Subscribe to PREMIERGuitar on YouTube today!

- Gear Demos
- Rig Rundowns
- Interviews
- And much more!

SUBSCRIBE TODAY AT
youtube.com/premierguitar

MIND YOUR MUSIC



Analog Loop Bypass
Switcher / Router / Mixer

The DB-11 Pedal Palette™ is the first and only analog loop bypass switcher, router, and mixer capable of swapping effect pedals instantly while simultaneously providing a parallel mix bus. The routing and order of the effects is highly flexible and programmable offering unlimited options to create inspirational new sounds from existing pedals.

Compact MIDI Controller /
Loop Switcher

A versatile, simple to program master controller, the DB-11 Switch Dr.™ combines fully programmable MIDI control, true-bypass audio effects loops, and amp channel switching. The compact yet powerful design meets your most basic needs – from sending a single program change to controlling an entire rig.

Loop Expander

A true bypass audio switcher, the DB-11 Loop Expander enhances programmable effects loop switching for any MIDI controlled setup. Add loop switching to any existing system with a simple MIDI controller, or expand the number of true bypass loops with a DB-11 Pedal Palette or Switch Dr.

Amp Switcher

The DB-11 Split Personality™ Amp Switcher delivers command performance eliminating the buzz and hum from ground loops. The Class-A, discrete input buffer eliminates losses and loading problems due to splitting. The only amp switcher pedal that is directly MIDI controllable, it provides easy integration with any MIDI controlled set up.

Creative Sound Solutions That Won't Bend Your Brain

The Decibel Eleven brand has quickly become the smart choice for the world's most demanding and creative musicians. Each product is designed to deliver unique capabilities and distinct functions that transcend all others – providing an infinite range of combinations and flexibility. Express yourself.

Play on at Decibel11.com

Power your rig with a DB-11
Hot Stone Power Supply

decibel eleven™

Copyright 2014. Decibel Eleven, Pedal Palette, Switch Dr. and Split Personality are trademarks of Decibel Eleven. All rights reserved.

Summer Namm • Booth# 950 (Hall B)

Bow Down Upon Our Church of Acid Rock.

PureSalem Guitars
www.puresalemguitars.com

Precious Gems.

(And the diamonds are okay too.)

AMALFITANO pickups
amalfitanopickups.com
(817) 917-8707

See us at NAMM: Booth #1536, Hall E.

34 Years of
LEGENDARY™ STUFF!

BREEZY RIDGE INSTS. LTD.
610.691.3302
www.jpstrings.com

Introducing BrownBox
"The Gateway to Great Tone"

BrownBox is the first power correction unit designed exclusively for use by tube-amp players. Seasoned Pros know THE critical first step for Tone Shaping is having the proper operating voltage available. It's that simple! Harmonically rich, killer tone night after night begins with **BrownBox**

Made in the USA

www.AmpRX.net

FREAK OF NATURE

With its cascaded, multiple JFET design the Hi Volt behaves like the perfect tube amp. Unlike any pedal you've ever experienced, this little black box creates an extremely touch-sensitive ride and responds dynamically to your pick attack. Once it's engaged it will transform an amp of any size with an unprecedented amount of depth and mass. With plenty of usable of gain on tap, the Hi Volt lets you create diverse musical landscapes, from grinding blues breakup to far beyond. When playing chords, the distortion remains tight and focused while single notes soar.

Check out the new Hi Volt from Lovepedal today…we're proud to say there's nothing else like it.

LOVE PEDAL CUSTOM EFFECTS
lovepedal.com

Katana 刀

Singing Harmonics & Sustain
No String-Break by Flat-Lock
Stepless Intonation Setting
4 Semitones Up-Bending
Hardened Steel Knife-Edge
CNC-Milled from Bell Brass

ALLPARTS 100% ABM
www.allparts.com
www.abm-guitarparts.com

Tremolution

Read PREMIERGuitar wherever and whenever you want!

Subscribe today and get 12 issues for $11.99!

PremierGuitar.com/apps

"The Stand Worth Taking"
Cooperstand®
Pro Instrument Stands

NOW AVAILABLE DIRECT TO DEALERS

NAMM BEST SHOW

SUMMER NAMM BOOTH 1626

cooperstandinfo@gmail.com
www.cooperstand.com

BearFoot Guitar Effects
Colours You Can Lick!
BearFootFX.com

AVAILABLE IN ALL SIZES: S, M, L, XL

Thimble Slide™
Patent 8399753
A New Kind Of Guitar Slide

* Slide When You Want
* Fret When You Need!
Allows your fingertip to still press the strings.
Play chords, slide a melody, run lines - all while wearing the slide.

www.ThimbleSlide.com

Amazing video samples.

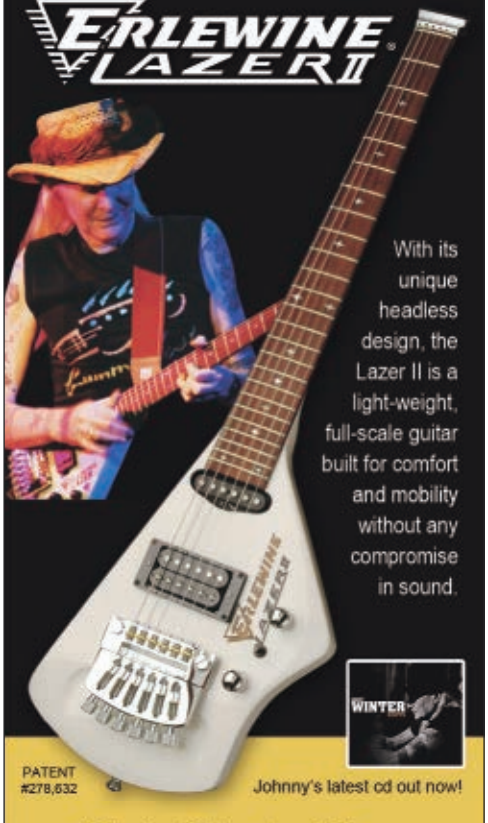
virgilguitars.com

MOD KITSDIY.COM™

Build your own wah pedal with:

The Wahtz

ERLEWINE LAZER II



With its unique headless design, the Lazer II is a light-weight, full-scale guitar built for comfort and mobility without any compromise in sound.

PATENT #278,632

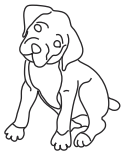
Johnny's latest cd out now!

Erlewine Guitars, Austin Texas
512-302-1225 • erlewineguitars.com

nordstrand pickups

Introducing the new

Shush Puppy®

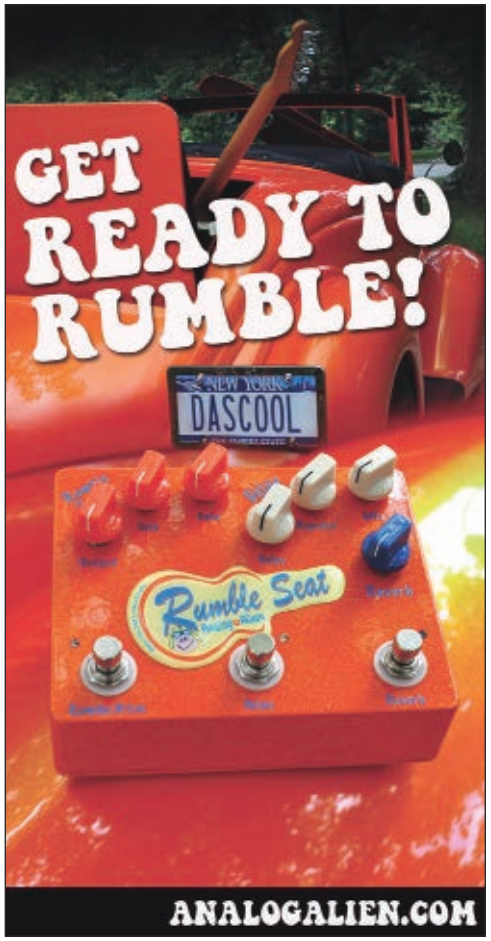


- Lush & detailed single coil tone
- Noiseless hum-cancelling design
- Unique eye catching appearance
- Easy direct replacement
- Optimized for 250k pots

Presenting the new flagship model of the Nordstrand Pickups product line. The Shush Puppy is the culmination of over 6 years of R&D along with a desire to provide players with an uncompromising single coil tone without the noise. The Shush Puppy delivers pure single coil tone, zero single coil hum.

www.nordstrandpickups.com 909-790-2548

GET READY TO RUMBLE!



ANALOGALIEN.COM

OGRE
ENJOY GREAT SOUND WITH THE OGRE
Distributed by: MMG Distribution
www.ogreusa.com

Big Bends
NUT
SAUCE
ACCEPT
NO
IMITATION!
bigbends.com
0.5cc
1.5cc
6.0cc
MADE IN THE USA

Monster Tone - Sustain - Stability
VintageVibrato™
Direct Retrofit for Strat® style guitars
MannMade USA
603-488-1912
Check out our website for additional bridges and hardware
MannmadeUSA.com/pg

Now
Shipping!
BIG ROCK

Get 5
issues of
PREMIER
Guitar
PG
for $4.95
Visit www.premierguitar.com/trial-sub

BJF Series by One Control

Bjorn Juhl designed them, so you know the BJF Series from One Control will be amazing!

Red Strawberry Over Drive

Granith Grey Booster

Anodized Brown Distortion

www.one-control.com

Tone: Boutique Price: Flea Market

The innovative design of our proprietary ATR™ (Authentic Tube Response) technology has opened up the door to boutique tones without the price.

Please visit www.koch-amps.com for more information.

The Koch Jupiter is available in 1x12 and 2x12 versions

StageTrix™ TUNE YOUR GEAR.

Use and Forget.

You will only remember you use Pedal Fasteners™ when you realize your stomp-boxes are staying firmly on your board.

www.stagetrixproducts.com

Avante by Veillette

Gryphon 12-string
A New Voice

veilletteguitars.com

ThrōBak

CLASSICS REBORN

They don't make them like they used to... We do.™

MXV PICKUPS

www.throbak.com Made in USA

HEADLESS

USA

...The Ultimate Headless Guitar and Bass Resource...

NEW
USED VINTAGE
BUY SELL TRADE...

www.HeadlessUSA.com
Headless Hotline:
203. 395. 8013

Control Freak

BY JOL DANTZIG

The Teisco Del Rey Spectrum 5 that made its debut in the mid '60s is a fine example of pushing the landscape limit on a guitar's face with onboard controls.

What's *the* main factor a guitarist considers when selecting an instrument? Tone? Playability? Comfort? It's usually a combination of all these things (coupled with price and a healthy dose of image). But have you ever bought a guitar you were in love with, only to find that the controls drove you crazy? Many of us have put up with confusing switches or clumsy control positioning and forgiven an axe's ergonomic shortcomings because everything else was great. Have you ever wondered how something like knob position is decided?

Even the first electrified guitars from the early 1930s—the Ro-Pat-In "Frying Pan" and Lloyd Loar's Vivatone—featured onboard controls to adjust the instrument's sound. Although the dynamics of performance was still available to the player via hand technique, the builders of those early guitars sought to provide the musician with an electronic method of managing all that raw power.

At first it was only a single volume-control knob, but a tone control soon joined the party on the face of the electric guitar. Both of these contrivances were probably added as mimicry of the radio technology on which the guitar and amplifier rig was based—yet they endure pretty much unchanged today. Positioning was simple (usually near the bridge where the guitarist could get to them quickly) and for a few years, that was fine.

But soon, the never-ending quest for *more* resulted in additional stuff being added. Guitars sprouted secondary pickups with switches and knobs to control them. Later, three and even four pickups appeared on guitars that were accompanied by a smorgasbord of toggles, sliders, pushbuttons, and knobs to dial in dozens of combinations. Some of the sounds were good, but others not so much. The important thing was that a guitar salesman could point to *features*. It was the era of Sputnik and the arms race between nations, which was seemingly echoed in the designs of electric guitars. It was a time when more was perceived as better.

Whereas the simple one-volume/one-tone setup allowed a designer to place everything close at hand, priorities had to be established as a sort of urban congestion filled up the face of guitars. To complicate things further, instruments began to feature vibrato tailpieces with arms that invaded the airspace above the controls and sometimes made their placement difficult. The saving grace in the early days was that a guitarist's routine was usually split between two modes: playing chordal rhythm and taking a solo. As long as the guitar could be toggled between two preset sounds, everything was fine. This was most famously tried on Fender's Jazzmaster and its two parallel sets of controls that could be preset, presumably for lead or rhythm work.

Of course, guitarists are never satisfied with only a few choices. As guitar sounds began to dominate live music, it became more important for a player to be able to manipulate and modify an instrument's sound on the fly. We do this today with the help of complex pedalboards, but at first (aside from the much fewer available effects at the time), it was more about the guitar's controls. A high point of complexity may have been the 1978 B.C. Rich Bich that boasted an entire electronics bin of mini switches bristling from its top.

In a return to the early days, however, the basic layout of the electric guitar eventually became more standardized with a simple pickup selector and the volume control close to the musician's picking hand. The Stratocaster should win the award for this, as its volume knob resides a mere .75" from the 1st string. If your technique includes doing volume swells, the placement is magnificent. But some guitarists find that they inadvertently slap the volume while strumming. Similarly, the Strat's pickup selector is angled directly along the natural sweep of the picking hand. Some find it handy, but others are constantly moving it accidentally.

The Les Paul design houses the control knobs at a further distance from the strings (probably because this was the way Gibson has always done things and because the controls need a flat area away from the arch of the top). PRS approached this design challenge by routing large holes in the top where the controls were located. PRS also first utilized rotary switching because blade-type switches were designed for thin plates like Fender uses, not thick wood tops. Builders must always be careful when adapting a blade switch to a guitar top by keeping the slot angled *across* the grain and not parallel, which can cause splitting over time.

For every design decision, there are fans and detractors. For me, the Les Paul pickup selector is always in the way, yet others find it perfect. Lots of Tele players turn the control plate around backwards, and swap the volume and tone to keep the toggle out of the way and bring the volume knob closer. Some players use a volume pedal and forsake the onboard controls completely. You can't please everyone, so you've got to decide what's important and please yourself. Thankfully, we're in an era where there are quite a number of alternatives.

JOL DANTZIG *is a noted designer, builder, and player who co-founded Hamer Guitars, one of the first boutique guitar brands, in 1973. Today, as the director of Dantzig Guitar Design, he continues to help define the art of custom guitar. To learn more, visit guitardesigner.com.*

Go Pro

The Professional Choice

www.carlmartin.com

Growing Apart

BY JOHN BOHLINGER

Can your former musical heroes pass the Cap'n Crunch test?

I used to love Cap'n Crunch. Each morning before school I'd wolf down two huge glistening bowls of that chemical/sugar hybrid, then greedily slurp the sickeningly sweet milk pooled in the bowl. When I'd get home from school, I'd dig my unwashed, sticky hands right into the box, cramming dry mouthfuls of those nuggets into my face as I watched *Gilligan's Island*, doing my homework during commercial breaks. (What the hell was my mother thinking? Did she think Crunch Berries were fruit? This is not the kind of diet that fosters healthy children.)

Today, if God or the Devil or the current host of *The Price Is Right* gave me a choice between embracing my former diet or having my testicles nailed to a table, I'm not sure which I would choose. Like most kids, I was an idiot with terrible taste and strong opinions. But that's the thing about bad taste, people seldom recognize it in themselves. (That's why you see so many people wearing Crocs.) Usually we grow up, reevaluate, and trade the shiny shallow for substance.

Last night I attended a concert featuring five of the most revered musicians of my youth. Because I'm protective of those I once loved I can't tell you their names, but man, it was a sad event. These old, bloated dudes looked like they had just stumbled out of a homeless shelter and into a BeDazzler. The years had transformed them from beautiful alpha males into slightly disoriented geezers who looked a bit grouchy having skipped their nap to make soundcheck. As a teenager, I would've gladly traded either one of my parents just to be able to attend this show. As an adult, I had to pound three Bombay and tonics to tolerate it.

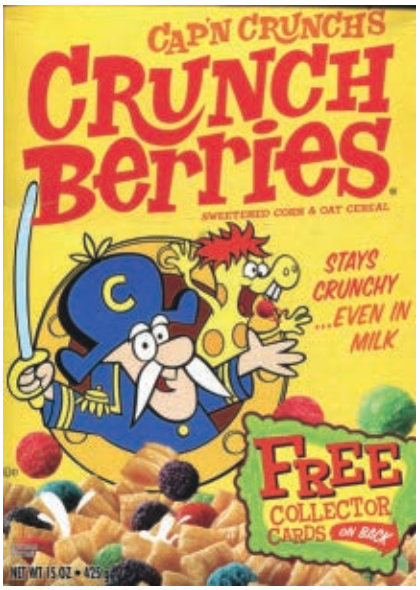
The physical decline of these musicians didn't bother me. That brutal bitch Time has begun waging the same war on me and most of my old friends, making us avoid mirrors and bright sunlight. The show was troubling because I didn't like the music anymore. How could I feel anything but absolute joy to be in the presence of the music and musicians that meant so much to me during my formative years?

The music of my youth was not just music. It was my guide, mentor, spiritual advisor, therapist, and social connector. It's the painful plight of adolescents to search quietly for direction and answers about life while they bluff their way through it with bravado. For most of us, music came to the rescue by explaining everything while entertaining us with a driving beat.

For example, like all teenage boys drunk on testosterone, I was obsessed with, and secretly terrified by, sex. Having never experienced it (nor seen it during those pre-internet days), I was desperate for clues. How does doing "it," in point of fact, happen? Am I gay and just don't know it? Will this whole sex thing be a disaster that leads to my inevitably pathetic life of a pariah? Please David Lee Roth and Gene Simmons, tell me what to do.

Today, though still somewhat obsessed with this provocative topic, I've seen the magician backstage putting rabbits in the top hat and there's not a lot of mystery left to the mating dance. I no longer need relationship advice from Diamond Dave or The God of Thunder. Time changes priorities and perspective, which has made me a different demographic. When I was a teen, I wanted to rock 'n' roll all night and party ev-er-ree day. Now I fantasize about getting seven solid hours of sleep, waking up without a hangover, and having a decent bowel movement before my soul-crushing day begins. I have a lot more in common with Homer Simpson than most of the acts currently making pop music. The majority of music from my teens was written and performed by kids for kids, and typically kids are not particularly well informed.

On the other hand, the very best pop and rock music is, was, and will always be written and performed by people under



the age of 30. I'm still amazed by the insightful and brilliant songwriting of a very young Chuck Berry, Queen, Heart, Simon & Garfunkel, Prince, Clapton, the Allmans, Chrissie Hynde, Rod Stewart, Elton John, AC/DC, Nirvana, U2, Bruno Mars, Van Halen, Skynyrd, the Beatles, Hendrix, Zep, Dylan, the Stones, Bowie, the Who, the Doors, Buddy Holly, Springsteen, the Eagles, and more. They all produced their best work when they were young.

As a kid I loved all this stuff, but I also loved a lot of popular crap that I was too stupid to recognize as crap. Back in the day, the crap was concealed beneath the confidence, blind earnestness, and cool beauty of youth. Now the lack of substance is as obvious as a bad toupee, sagging skin, and expanding paunch. Crap artists do not age particularly well because the appeal is only skin deep, and the skin gets wrinkly. Crap has a short shelf life.

JOHN BOHLINGER *is a Nashville musician who has led the band on NBC's* Nashville Star *and served as musical director of the* CMT Music Awards *for five years. In addition to his "Last Call" column, John recently joined* PG *as our full-time gear demo/Rig Rundown video dude.*

Introducing

DUAL DARK

All Tube. Two Channel. High Gain.
Choose from 50 or 100 Watt models.

EVIL TWINS

Bringing a new dimension of sound that delivers potent combinations of tone and the highest levels of gain Orange has ever offered.

Dual Dark 50

Dual Dark 100

KEY FEATURES

50 and 25 Watt Modes (Dual Dark 50)
100, 70, 50 and 30 Watt Modes (Dual Dark 100)
Low Impedence Effects Loop
Footswitchable Attenuator

orangeamps.com

follow us:

Secret sauce.

Dunlop

jimdunlop.com

ECHOPLEX

PREMIER Guitar

AMP

PRODUCT SHOWCASE

WELCOME TO THE PREMIER GUITAR AMP PRODUCT SHOWCASE.

To complement our coverage of amps in this issue, we've included this special promotional section that puts the spotlight on even more amplifier madness. You'll see a parade of new gear from a variety of manufacturers with detailed specs and convenient links to video and audio demos along with information on where you can go to play and/or purchase the gear!

LINE 6
AMPLIFi 150

AMPLIFi 150 is unlike any amplifier you've ever played. A revolutionary 5-speaker stereo design delivers powerful, detailed tones that other amps simply can't produce. As a Bluetooth stereo speaker system, AMPLIFi 150 is perfect for jamming at full volume, playing back songs at rehearsals and hearing every detail of your favorite songs. And you can go even further with the breakthrough AMPLIFi Remote iOS app. Control your guitar rig wirelessly—choose from over over 200 amps and effects to dial in the perfect tone. Select a song in your music library and automatically get perfectly matched tones. You can also create, share, download and rate tones with an online community of guitarists.

Street price: $699.99
line6.com

FIND US ON FACEBOOK

TECH 21 NYC
Trademark 60

Weighing just 36 lbs., the Trademark 60 is a road-worthy workhorse that delivers big and tall in almost any situation. A 2-channel, 60-watt, 1x12 amplifier, it can sound like a slew of beaten up vintage amps, modern day raunch machines, plus you have the flexibility to create your own trademark sounds

Features include 100% analog SansAmp™ technology, a lush Accutronics multi-spring reverb, Celestion Seventy80 speaker, active EQ, Boost function, effects loop, and XLR output to go direct to a mixing board or PA.

This chameleon of a combo debuted in January 1996. A year later, the infamous Les Paul chose the Trademark 60 for his shows every Monday night at The Iridium in New York City until his unfortunate passing in 2009. Paul also used the Trademark 60 at Carnegie Hall for his 90th birthday performance in 2005.

Almost 2 decades later, the Trademark 60 is still pumping out timeless killer tones worldwide. And still manufactured in the U.S.A.

Street price: $609
tech21nyc.com

TECH 21

DESIGNED AND MANUFACTURED IN THE USA

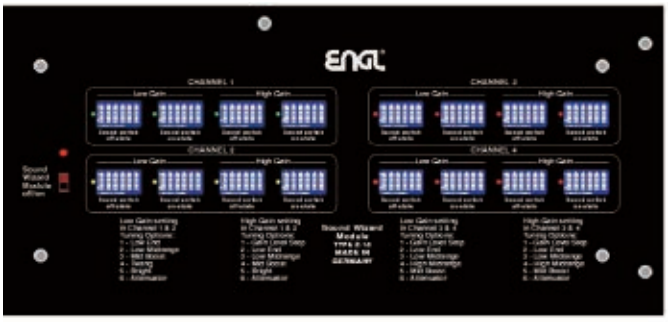
HEAR SOUND CLIPS FIND US ON FACEBOOK

ENGL AMPLIFICATION

Invader II E642/2

How do you surpass a successful amp like the Invader 100? Listen to your player's demands and give them total control of their sounds. Powered by four EL34s, the ENGL INVADER II features an improved channel design including two Clean and two Overdrive channels, all switchable between a HI or LOW Gain mode plus a SOUND switch that changes the character per channel. That's a total tonal variety of 16 basic sounds!

Adding in the optional new SOUND WIZARD MODULE E-16 is a tone hunter's dream come true. When inserted in the back of the amp, the modules offers 12 Sound Options for all 16 basic sounds to customize and fine tune your desired tones. Invade your amp sound—customize your tone!



Street price: $3,199.99 (amp), $399.99 (Sound Wizard)
engl-amps.com

PLAY VIDEOS BUY IT NOW FIND US ON FACEBOOK

ENGL AMPLIFICATION

Power Amp E810/20

The E810/20 is a lightweight, 1U stereo tube power amp delivering 2x20 watts. Each stereo channel, Left and Right, includes separate Volume (A/B) and Presence and Depth (Sound Set A/B) controls enabling access to different tonal settings. An Input Gain Level switch allows for boosting input gain. Volume A/B switching and Sound Set A/B can be remote controlled via an optional Z-4 footswitch. Powered by four EL84 power tubes with three ECC83 preamp tube and phase splitter tubes, the E810/20 also includes 8 ohms and 16 ohms outputs for each channel.

Street price: $1,349.99
engl-amps.com

PLAY VIDEOS BUY IT NOW FIND US ON FACEBOOK

ENGL AMPLIFICATION

ENGL Bass Rackhead E1060

The Rackhead 1060 is a versatile bass amp for use on tour or in studio. It includes 2 Channels (one tube, one solid-state) each with a class D power amp, and all of the tone shaping, controls, and functions you could possible hope for! Also available are 4x10 and 1x15 pro speaker cabs. Visit engl-amps.com for complete details.

Street price: $2,199.99
engl-amps.com

PLAY VIDEOS BUY IT NOW FIND US ON FACEBOOK

OXYGEN AUDIO LTD

Ozone 18W

Combining classic components with cutting edge industrial design, Oxygen Amps Ozone 18W boasts a tone and versatility that will add depth and clarity to your musical style. The amps proprietary ground plane circuit design delivers the "quietest" amp in the industry. Feedback and ghost notes are effectively eliminated! 3rd generation London Power Scaling provides a 40dB dynamic range without losing definition, gain and even-order harmonics. 5879 tubes in the Cream Channel provide fabulous tone and consistent quality without the microphonics of EF86's. Additional features include Cream and Clean/Boost channels with footswitchable boost control, all tube (5879, 3x ECC83, 2x EL84, 5AR4), hand-built, point-to-point construction, 3-band EQ, rotary gain, high cut and switchable impedance (4/8/16 ohms) The Ozone series is available in head, 1x12 and 2x12 combo and 2x12 and 4x12 extension cabs A 36W offering will also be available soon!

Street price:
$2,450 (Head)
$2,650 (1x12 Combo)
$890 (Cab)
oxygenamps.com

oxygen

PLAY VIDEOS BUY IT NOW FIND US ON FACEBOOK

SCHECTER AMPLIFICATION

Hellraiser™ and Hellwin Collections

The sound of the next generation is here.

Created with renowned amp designer James Brown, The Schecter range of all-tube amplifiers are a unique blend of innovative ideas, road ready construction and vicious looks ... yielding tones both versatile and hostile.

Features include:
100 watt all tube design • 4-12AX7 and 4-EL34 (bias-switchable to use 6L6) • independent channels •Independent channel EQs • Master Boost • UK to USA Clean Voicing • Innovative Active and Passive Instrument Inputs • 4 Position Tonal Enhancement 'Focus' Control • 100w/50w switch • effects send and return • switchable 4/8/16 ohm • Speaker Emulated XLR Direct Out with 4 x 12 Straight or Slant Cabinet Voicing •

Visit our web site for complete information and specifications on our Hellraiser USA and Stage Series Amplifiers, 4x12 Speaker Cabinets, and the Hellwin Synyster Gates Signature Designs.

Street price: $1,299.00 - $2,599.00
schecterguitars.com

schecter
AMPLIFICATION
SUN VALLEY, CALIFORNIA

BUY IT NOW FIND US ON FACEBOOK

3 MONKEYS AMPS

The Orangutan Jr.

An all new amp model, with it's roots in the circuit of it's big brother The Orangutan.

This little guy has two cathode biased 6V6 power tubes and three 12AX7 preamp tubes. Controls are VOLUME, TREBLE, BASS, REVERB, and MASTER. It also has a foot switchable BOOST (which bypasses the bass control, similar to the LIFT on The Orangutan). At around 15W this is the perfect amp for the small stage, studio, or bedroom.

Currently in use on stage and in the studio with our artists Butch Walker, Justin Sharbono (Soul Asylum), and Jason Morrow (The Whisky Gentry).

Street price: **Starting at $1,799**
3monkeysamps.com

3 MONKEYS AMPS | THE NEW SHAPE OF TONE

HEAR SOUND CLIPS PLAY VIDEOS FIND US ON FACEBOOK

GOODSELL AMPLIFIERS

GC-12

With original Gain/Tone/Volume control surface, the GC-12 in many ways resembles the original Series 1 Super 17. Featuring the same EL84 power section, with the same output transformer, the big difference here is an all-new EF86 pentode pre-amp tube. Along with the standard WGS Reaper or optional WGS Black and Blue Alnico speaker, the lower voltage of the EZ81 rectifier, this configuration 'scopes right at 12 watts clean, but it is capable of grease and gnarl at astonishing volume levels. Very British.

Street price: **$1,499**
superseventeen.com

PLAY VIDEOS BUY IT NOW FIND US ON FACEBOOK

BOURNS PRO AUDIO

Potentiometers

Bourns Pro Audio products are designed with the high performance specifications required for use in instrument amplifiers. Models 96, 53 and PDA241 are all suitable for use as volume or tone controls, and models EM14 optical encoder and PEC11L contacting encoder for digital amplifiers,. Both products have optional push switch options that can be used for menu selection or activation of effects. These products are all recommended for their rugged design and superior performance.

Street price: **Check with distributors and resellers**
bourns.com/ProAudio.aspx

PLAY VIDEOS FIND US ON FACEBOOK

PRS GUITARS

HXDA 50

The PRS HXDA underscores the flexibility of the PRS 25th Anniversary amp while capturing the iconic tones of late 1960's/early 1970's rock. The Cinemag output transformer provides a familiar voice and the addition of three switches (that control the amp's brightness and gain) add tonal flexibility by making key components "lead" specs. This amp delivers a tone equal to the revered smooth, fat, singing, less gainy tone of 1960's and 1970's holy grail amps.

Street price: $2,999
prsguitars.com

PRS PAUL REED SMITH GUITARS

FIND US ON FACEBOOK

PRS GUITARS

DG Custom 30

"After extensive designing, we have come up with an amp that blows me away I've used it on hundreds of gigs and sessions and found it equally well suited to both live and studio work " – David Grissom. The DG Custom 30 brings Grissom's tone to players looking for a highly-responsive, musical amp, featuring four EL84/7581 power tubes and several tone-sculpting features, including bright switch, reverb, boost/normal gain switch, presence, and top cut controls.

Street price: $2,899
prsguitars.com

PRS PAUL REED SMITH GUITARS

PLAY VIDEOS FIND US ON FACEBOOK

PRS GUITARS

Archon

Greek for "ruler" or "lord," the PRS Archon is a commanding and versatile 2-channel amp with aggressive overdriven tones and sparkling cleans with plenty of headroom The lead channel was designed with five gain stages before the master volume, delivering lush distortion The clean channel provides rich clear tones that retain clarity at high volume and are an excellent platform for pedals A half-power switch allows players to choose from 100 or 50 watts.

Street price: $1,899
prsguitars.com

HEAR SOUND CLIPS PLAY VIDEOS FIND US ON FACEBOOK

PRS GUITARS

2 Channel Custom 50

The PRS 2-Channel Custom 50 is a versatile amp with several tone-sculpting features that give players ultimate versatility and musicality. Great for pedals and alternate tunings.

Volume, bright switch, T/M/B, and master volume controls for each channel. Global presence and global push/pull reverb controls. Switchable mid-shift on the lead channel. Global push/pull presence control/ depth boost. Full effects loop. 3-button LED footswitch controls, reverb, solo boost, and channel selection.

Street price: $2,099
prsguitars.com

FIND US ON FACEBOOK

ORANGE AMPS

Dual Dark 50

Imagine an Orange amp that doesn't necessarily sound like an Orange amp. That might be the best way to describe the all-new Dual Dark 50 and 100 watt guitar amps, which are like the "big brothers" to Orange's Dark Terror. They've still got massive amounts of gain and that classic crunch you've come to expect from Orange. But the Dual Darks are voiced with a bit more emphasis on clarity in the upper mid range. Instead of American "fizz" you get a tight British "fuzz" in the treble range. As always, the low-end is thick, warm, and booming. The two-channel Dual Darks feature tube FX loop and attenuator. They're powered by EL34's.

Street price: **$2,299**
orangeamps.com

ORANGE AMPLIFICATION

PLAY VIDEOS FIND US ON FACEBOOK

THE EPIPHONE CO.

Ltd. Edition 75th Anniversary Inspired by 1939 Century Amp

Epiphone's Inspired by "1939" Century Amp is a modern 18-watt all-tube guitar amp with a 12" speaker that revives an Art Deco era masterpiece from Epiphone's early days in Manhattan. Featuring a 30s era style cabinet, vintage style grill cloth, and newly designed electronics. The Century is powered by two 6V6 and two 12AX7tubes and features three uniquely voiced inputs, a Boost mode, internal bias adjustment, and a full-toned 12" Electar speaker.

Street price: $399
epiphone.com

Epiphone®
performance is our passion

FIND US ON FACEBOOK

RIVERA

Venus Deux

If you love getting all your overdrive tones from your pedal, this amp is for you! Designed to have maximum headroom giving your pedal the clean tube power amp foundation it needs for the fattest tones! The Venus Deux is a Super simple, non-master volume 25watt 1x12 that uses a "custom for RIVERA" 12' speaker, voiced to have the warmth of a Vintage 30 and clarity of a T-75. super lush spring reverb included.

Street price: $1,499
rivera.com

RIVERA
AMPLIFICATION

PLAY VIDEOS BUY IT NOW FIND US ON FACEBOOK

CELESTION

A-Type

Inspired by our favourite American tones, the A-Type is a different kind of guitar speaker from Celestion. It has the musical and revealing three-dimensional quality that's the heart and soul of Celestion's sound, but features a more laid-back midrange, revealing body and complexity in the upper register, accompanied by full and rounded low frequencies.

Clean players will love the smooth articulation; for rockers the brooding, powerful low end threatens thunder!

Street price: $99
celestion.com

PLAY VIDEOS BUY IT NOW FIND US ON FACEBOOK

CELESTION

V-Type

The V-Type produces an exciting "modern vintage" sound with a tactile responsiveness that makes you want to keep on playing. This sweet sounding guitar speaker adds a real Celestion-style vintage musicality to your tone: clean sounds are true across the lows, mids and highs, with enough chime and sparkle to add clarity and definition. Crank it up for sizzling, raw rock tones with plenty of mid-band warmth to give body and substance to lead playing.

Street price: $99
celestion.com

PLAY VIDEOS BUY IT NOW FIND US ON FACEBOOK

QUILTER LABORATORIES, LLC

ToneBlock 200

The Tone Block 200 delivers the most power you've ever experienced in the smallest possible package. From the pedalboard to the rack, the Tone Block delivers on the promise of lightweight, next generation Quilter tone in the most diminutive of packages.

From the Quilter proprietary direct out to the jaw-dropping tube-like tone, never before has so much clean headroom been put into such a practical application. Set it up with your pedals or your rackmount effects to achieve incredible results effortlessly.

Use it anywhere, in any setting. It is everything you love about tube tone without the tradeoffs or hassles. Plug it in there in the studio through the direct out to record late at night. Then crank it into your favorite cabinets at the gig. All the while without giving up on your tone, you're way through the front end you already love. Or just bring it along as a backup. Either way, there is no end to the ways the Tone Block has your back at every gig, every night, any place on the face of the earth.

Street price: $399
quilterlabs.com

Quilter
Guitar Amplifiers

PLAY VIDEOS BUY IT NOW FIND US ON FACEBOOK

DEAN MARKLEY

DM Series

The Dean Markley DM Series of amplifiers dish out heaps of powerful, solid state tone with reliable and high quality construction. Consisting of the 60 Watt DM60RC, the 30 Watt DM30RC and the best sounding small amp on the market, the DM15R, these babies offer glassy cleans, screaming crunch, built-in effects, and modern features like a handy MP3 input jack. Best of all, they'll blow your socks off when you crank 'em up!

Street price: **DM60RC - $299, DM30RC - $189, DM15R - $149**
www.deanmarkley.com

BUY IT NOW FIND US ON FACEBOOK

DEAN MARKLEY

DM15R

Our DM15R is built to exacting specifications using the highest grade components. With all the tonal characteristics of a big amp in a small package, this is the best sounding practice amp in the world. The DM15R provides full, glassy cleans, crunch you can feel in your gut, and soaring lead tones. Featuring a specially voiced 8" speaker, 15 Watts of power, a 4-Band EQ, Reverb, and a handy MP3 input jack.

Street price: **$149**
www.deanmarkley.com

BUY IT NOW FIND US ON FACEBOOK

DEAN MARKLEY

CD Series

The CD Series of tube amplifiers deliver boutique soul with modern playability. With 60 Watts of killer, versatile tone, the CD60 has been the choice of top players including Eric Clapton, Alex Lifeson and Andy Summers. The CD30 offers the same buttery cleans and thick, crunchy distortion as the CD60, but in a portable, 30 Watt package. Both are equipped with 2 channels, 6L6 power tubes, 12AX7 preamp tubes, and a custom-voiced Celestion 12" speaker.

Street price: CD30 - $599, CD60 - $699
www.deanmarkley.com

BUY IT NOW FIND US ON FACEBOOK

DEAN MARKLEY

Ultrasound AG Series

Take your acoustic sound to the next level with Ultrasound's award-winning AG15M, AG50 or AG100. Need power? The "Little Brute" AG100 pumps out 100 Watts RMS into its heavy duty 8" Eminence speaker, while the AG50 pushes 50 Watts through dual 8" speakers to produce sparkling, transparent tones. Looking for the perfect starter amp for small gigs? The highly affordable, 15 Watt AG15M provides full frequency acoustic tones through an 8" coaxial speaker.

Street price: AG100 - $548.90, AG50 - $439.99, AG15M - $152.90
www.deanmarkley.com

BUY IT NOW FIND US ON FACEBOOK

MAGNATONE
Twilighter

Magnatone's Twilighter is an American handwired guitar amp that picks up where this historical amplifier company left off.

Proudly made in the USA, the Twilighter features a pair of 6V6 power tubes and a GZ34 rectifier tube, offering an impressive 22-watts of clean, robust, all-tube tone. Dynamic range and touch sensitivity is what this amp is all about.

Magnatone uses only the finest parts, materials and workmanship such as finger-jointed, solid pine cabinets, covered in a 100% cotton textile material. Other fine details such as their handmade top-grain leather handle, and 14-karat gold plated chevron logos are just a few examples of their attention to detail.

Magnatone's patented Pitch-Shifting Vibrato delivers "true vibrato"! Of course they recognize the usefulness of tremolo too. Their tube driven reverb is second to none. Magnatone's True Dimensional Sound® amplifiers have been designed with the professional player in mind.

Street price: $2,399
www.magnatoneusa.com

MAGNATONE
TRUE DIMENSIONAL SOUND® • EST. 1937 • MADE IN USA

FIND US ON FACEBOOK

ISP TECHNOLOGIES

Theta Pre Amp Pedal/Stealth Power Amp

The THETA PREAMP PEDAL delivers the Incredible High Gain and Clean Channel sections of the THETA amplifier in a floor pedal plus the Decimator G-String II Noise Reduction to keep your sound dead quiet The THETA offers Incredible tone and over the top gain for any playing style Add the STEALTH 180 WATT pedal power amplifier weighing in at only 1.2lbs (Stealth) and 2.2lbs (Theta), based on ISP's new patent pending amplifier topology for one smoking guitar rig.

Street price: $399 each
www.isptechnologies.com

HEAR SOUND CLIPS PLAY VIDEOS FIND US ON FACEBOOK

TELEFUNKEN ELEKTROAKUSTIK

ECC83-TK Black Diamond Series Tubes

TELEFUNKEN vacuum tubes have been the benchmark of excellence in all audio applications for many decades.

This rich history continues with the introduction of new production tubes from TELEFUNKEN Elektroakustik.

The TELEFUNKEN ECC83-TK is a well-balanced tube suited for all types of music and playing styles.

Designed to allow for cleaner headroom than higher gain 12AX7s when pushed into overdrive, it offers strongly defined lows, a rich mid range, & clean, smooth highs.

Street price: $42
www.t-funk.com

BUY IT NOW FIND US ON FACEBOOK

FUCHS AUDIO TECHNOLOGY

Mantis Jr.

The Fuchs "Mantis Jr." is their answer to the low cost boutique, high gain metal amplifier. Modeled after their original "Mantis" amp, It's a 2-channel amp that thinks it's a 4-channel, with 2 gain/2 master volume controls, bass-middle-treble, presence and thrust controls, it will give you all the tones every metal head dreams of without scooping out all the mids! Now you don't have to drop 3k+ to get the boutique tones you always dreamed of!

Street price: **50 watt- $1,795 ,**
100 watt- $1,995
www.fuchsaudio.com

PLAY VIDEOS FIND US ON FACEBOOK

FUCHS AUDIO TECHNOLOGY

Casino Series

"The Casino Series" from Fuchs® Audio Technology has finally brought the tradition of channel switching Fuchs® tones to a more affordable price range. These models have a great classic warm yet detailed American clean tone, with an adjustable voice that goes from warm "woman-tone", to "D-style", to "English rock" with the mere twist of the overdrive TONE control. With power levels from 4-100 watts and a killer digital reverb, this series is already a winner!

Street price: **$1,295 - $2,095**
www.fuchsaudio.com

HEAR SOUND CLIPS PLAY VIDEOS FIND US ON FACEBOOK

REEVES AMPLIFICATION

Space Cowboy

- All-tube circuit
- Single channel operation
- Master volume control
- High and low inputs
- Treble, mid and bass controls
- Presence control
- Preamp control
- Adjustable lead boost control on rear panel
- 2 knob Tube-driven reverb circuit with 3 spring long tank
- Dual mode foot switch for lead boost and reverb (included)
- Heyboer output and power transformers
- Hand wired turret board construction
- 50 watts via 2) KT-77

Street price: **$2,499**
www.reevesamps.com

REEVES amplification

PLAY VIDEOS

HEADSTRONG AMPLIFIERS

Santa Cruz 5

The new SC-5 is not a copy or replica of any one Blackface style amp but rather an amalgam of a few. Inspired by the power section of a 5 watt, the EQ of a higher watt amp and classic tube driven spring reverb, this amp may be one of the most versatile low wattage amps on the market today!

Street price: **Starts at $1,325 for Head**
www.headstrongamps.com

HEADSTRONG Amplifiers

FIND US ON FACEBOOK

VALVETRAIN AMPS

Trenton

The ValveTrain Trenton has been designed in the tradition of the masters. Premier Guitar recently awarded the Trenton amplifier their coveted Premier Gear award, citing 5 out of 5 on tone and ease of use. The hand-crafted, handwired, 6V6 amplifier provides voices inspired by the 50's and 60's. The Trenton is a flexible amp for both studio and home, and boasts 4 distinct switchable voices through its hand-wired all tube circuit.

Street price: $1,399
Valvetrainamps.com

HEAR SOUND CLIPS PLAY VIDEOS BUY IT NOW FIND US ON FACEBOOK

CARR AMPLIFIERS

Skylark

The Carr Skylark...is the ultimate low-power American inspired amplifier!!

It steals the ball from classic home/student 60s American amps such as the Harvard, and adds Muscle Carr musicality with real features, lasting design aesthetics, and your 'I can't stop playing' smile.

The Skylark has a built-in attenuator so you can play late night and get great grind at any volume

Street price: $2,390
www.CarrAmps.com

PLAY VIDEOS FIND US ON FACEBOOK